

Pittsburg State University

Pittsburg State University Digital Commons

The Techne, 1917-1937

University Archives

12-1-1936

The Techne, Vol. 20, No. 2: State Manual Training Normal

State Manual Training Normal School

Follow this and additional works at: <https://digitalcommons.pittstate.edu/techne>

Recommended Citation

State Manual Training Normal School, "The Techne, Vol. 20, No. 2: State Manual Training Normal" (1936). *The Techne, 1917-1937*. 117.

<https://digitalcommons.pittstate.edu/techne/117>

This Book is brought to you for free and open access by the University Archives at Pittsburg State University Digital Commons. It has been accepted for inclusion in The Techne, 1917-1937 by an authorized administrator of Pittsburg State University Digital Commons. For more information, please contact digitalcommons@pittstate.edu.

THE TECHNE

LIFE WITHOUT LABOR IS A CRIME. LABOR WITHOUT ART
AND THE AMENITIES OF LIFE IS BRUTALITY.—RUSKIN.

Vol. XX

November - December, 1936.

No. 2

Most people would succeed in small things, if
they were not troubled with great ambitions.

—Longfellow

— — —

It is one thing to wish to have truth on our side,
and another to wish sincerely to be on the side of
truth.

—Whately

— — —

Flinch not, neither give up in despair, if thou
dost not invariably succeed in acting from right
principles.

—Marcus Aurelius

— — —

There is nothing which persevering effort and
unceasing and diligent care cannot overcome.

—Seneca

PUBLISHED BY
KANSAS STATE TEACHERS COLLEGE
PITTSBURG, KANSAS

THE TECHNE

Published by the Kansas State Teachers College of Pittsburg
W. A. Brandenburg, President

Vol. XX

November - December, 1936.

No. 2

BOARD OF MANAGEMENT

Edgar Mendenhall, Chairman

Mellicent McNeil

J. C. Straley

J. Gordon Eaker

THE TECHNE publishes, for the most part, papers on educational subjects, though articles on closely related fields are also used. Part of these papers set forth the results of research; others aim at interpretation of current developments. Though some of the discussions will interest the specialist, it is hoped that in every number there will be something useful for the average teacher.

THE TECHNE is sent free to the alumni, school officials, libraries, and, on request to any person interested in the progress of education.

Entered as second-class matter December 13, 1917, at post office of Pittsburg, Kansas, under the act of August 24, 1912. Published five times a year—in October, December, February, April and June.

TABLE OF CONTENTS

A Teacher Confesses.....	5
Mellicent McNeil	
Some Facts about Snakes.....	9
Harry H. Hall	
Some Phases of Latin-American History.....	14
Oren A. Barr	
Cooperative Faculty Study on College Teaching.....	19
The Lecture Method, by Paul Murphy.....	19
The Class Discussion, by Gordon Eaker.....	22
Written Examinations, by Elmina E. Graham.....	24
The Class Demonstration, by Bertha A. Spencer.....	26
Directing the Search for Information, by William T. Bawden..	26
The Trend.....	28

A TEACHER CONFESSES

By

Mellicent McNeil

The snow-filled air was swirling about the building as I watched car after car park and the passengers trudge across the campus through several inches of slush to the Training School. I learned later in the day that 208 teachers had been present. It was Saturday, but these teachers had risen earlier than usual, had driven some distance through a blinding storm to arrive by nine o'clock at the Training School which was holding an open demonstration.

A few years ago I met in London a teacher sixty-eight years of age, who was on her first trip abroad. She was diligently employed with sets of slides, which she was having made for use in her school room; she was visiting with thoroughness every literary and historic landmark; she was studying the trees and other plant life in order that she might give the very best first-hand information she could obtain to her pupils in the two years of teaching service she was allowed in her state before being compelled to retire.

Thousands of teachers spend their summers on the campuses of Columbia, Chicago, California, and the dozens of other universities and colleges throughout the United States. Many of these teachers are working toward higher degrees; some are looking about for methods which will make them better teachers.

Why all this activity? Why this effort and strain? Why this planning and saving and scrimping to take a trip abroad or to spend a summer at a famous university? If you would ask these people, they would not tell you. They are a non-committal group, but each one has a secret within his breast. He would not let it be known for the world, for his position would be lost if the public guessed. I am going to confess that secret to you, for I belong to that restless, groping, straining number. I AM A FAILURE. We all are failures. We don't want to be failures; we want to be successes, but we don't know how.

When did I first realize this awful thing that has never given me peace night nor day since? I have known it for years, from the summer that I taught my first one-room school in the heart of the Cascade Mountains. Then I knew, and I buried my head in the pillow and wept; but I bathed my swollen eyes with cold water and powdered my red nose, for, the people with whom I boarded must not guess my persistent fear. I could not teach Johnny his tables, and I did not believe I ever could. The only way that he could remember, then was when I let him sing them to a tune, but when I asked him three times five, he didn't know. Tables shouldn't always be sung. What could I do? Perhaps a university would tell me.

I listened carefully through all my education courses; I stuffed my head with every theory. With a degree packed away in my trunk I thought I could surely teach now. I accepted a position as principal in a small high school; besides acting as principal, I was to teach English. My lessons in Shakespeare were planned thoroughly, beautifully in fact. Just so much time was allowed for introduction, which had been well prepared; just so much time was allotted for each act of the chosen play. But there was Ronald, and Ronald didn't like Shakespeare. It took ten of my forty-five minutes to argue Ronald to silence on the question, Resolved, that Shakespeare should be abolished from high school. There were glimmerings of appreciation from some, there were feeble reflections of understanding from others, but the love I had wanted to inspire, the enthusiasm I had hoped to stimulate, I could not find. My logical lesson plans were shattered. So great was the distance between my hopes and my accomplishments that I went home bowed in spirit.

University catalogs told of wonderful courses which would make the path of the teacher easy, and I believed them. Travel held out an inviting hand, and I felt certain that if I could obtain mental pictures of the environments of all my well-loved poets, that they would be baits which even the most wiley students could not resist.

So I joined the throng of tense serious eyed teachers, who endure the heat, the crowds, and the packed courses in the university summer schools. I hung over the rail of a Trans-Atlantic liner and watched London skyline unfold itself against the glow of early dawn. I listened to the flow of educational oratory at the state and national meetings of teachers. Was it inspiration, information, of techniques which I needed? I tried them all.

Today when I face one of my classes of college students, I thrill at the immense opportunities before me. This one has the making of a writer, but he must be made to see the need for correct spelling and grammatical form. Here is one who with help could get great appreciation and enjoyment from poetry. There are some who need personal interest of the teachers, some encouragement, others stimulation. But the time goes so quickly that before these hopes are more than a tenth fulfilled, the course is over. My plans again break about my head. There was so much to do; there is so little done. Failure again.

At commencement I watch the students, whom I have known, as they are granted their degrees. How much have they made the work they have covered a part of them? My courses only introduced them to great personalities. Will they ever learn to know these giants in the world of thought? Will they feel the robust, red-blooded, throbbing personality behind the warm hand-clasp of Browning? Will they ever understand those beating rhythmic phrases which formed themselves behind the sightless eyes of Milton and clamored to be freed? Will they be able to realize the terrific weight upon the heart of Carlyle

who looked out upon a down-trodden humanity he loved; yet he could offer it nothing better than more work?

I go home and take myself to task. Why have I never succeeded in my efforts? Shall I ever be able to do for these people the things I see that could be done, the things I see they need? I have found a few teachers who felt satisfied with their results. They presented their material, they said, and some students remembered it well enough to pass the tests; some did not. They used up-to-date techniques, they were reasonably well prepared. "You must expect that a certain percentage of the students will not grasp it. Such it life. Why worry? Why bother about it?" But of such teachers, I conclude, is the kingdom of heaven *not* made. I am not satisfied. I am like Ulysses,

"I cannot rest from travel,

I would drink life to the lees."

I turn to books, to magazines, to the words of great educators. What do they say? Can they tell us how to lead this vast array of youth who pass through our hallways into the higher places if not to the mountain peaks of life? How can we get above the cheap magazine, the sensational movie, the "funnies", the vulgar joke, into the realm of beauty where we can see and feel and listen to the "music of the spheres"?

I search, but I cannot find the answer except in tiny parts; some here, others there. These parts are as difficult to build into whole as are the parts of a jig-saw puzzle; but I work and try them one way and then another until I produce a picture which is incomplete and imperfect, for there are vacant places which I cannot find pieces to fill, and there are pieces that seem to fit nowhere. At the lower part of this picture, put together as best I can, I find a young girl teaching. She is surrounded by a large number of small children differing in manners, dress, and personality. But the teacher sees only one of these, a little dirty urchin, who is pounding on the desk and yelling uproariously; and the rest turn to look at him.

In the next picture the teacher is older and better poised. She is facing three sullen-looking boys of about twelve years of age, one of whom looks over his shoulder toward the window, where I catch a glimpse of a large number of boys and girls evidently enjoying a recess.

The last picture shows a woman of maturer years sitting at a desk facing a young man, who is evidently consulting her. With her finger on a line of the manuscript before them, she glances up momentarily to say to the group of students lined up at the door, "I shall help each of you just as quickly as I can get to you".

I ponder, and then I understand. In our immature years we restless ones, we failures have our trials, and they worry us. We see only a few problems, and in our immaturity we think that when these few are overcome we shall have no more. In gaining the wisdom to overcome these few, we develop the ability to discern more. We see not only problems which bother us, but we see possibilities in the students, pro-

vided they are helped along; we see corrections which need to be made; we see opportunities for helpful hints, which should be given. What we can't get done appalls us, and we look for greater strength and better methods.

We study, we strive, we plan, we try our best each day or each year, but when the day ends or the year is completed, we know that we have failed. My one consolation personally is that I believe that I am a growing individual, that I am more capable today than yesterday, that I am more able to give a higher grade of service this year than last. That knowledge is sufficient to lift me from the "slough of dispond", where I might become engulfed, to the hard road of persistence which leads straight ahead. Though I shall never reach the end of that road, though I know that I shall always fail, I "hitch my wagon to a star" and jump into the wagon. The riding is rough, and I have to hold on hard to keep my place, but the light of the star is always ahead, and I *may* get a little nearer to it.

SOME FACTS ABOUT SNAKES

By Harry H. Hall

There are probably more false ideas and misunderstandings about snakes than any other group of animals. Though the majority of snakes are harmless, and many of them perform a useful service by killing and devouring insects, rats, mice, gophers, and other farm pests, most people regard the snake tribe as the most repulsive in the entire animal kingdom. This prejudice against these creatures is too deep seated to be argued away. It existed in early Bible times, for in the story of the Garden of Eden a serpent is taken as a symbol of the evil one and a curse was pronounced upon it (Genesis III. 14- "Dust shall thou eat all the days of thy life"). Eating dust is the picturesque way of saying that snakes have no legs and must grovel over the face of the earth. With the exception of a few species possessing rudimentary hind legs, the snakes are entirely lacking in the ordinary means of locomotion, but crawl by special movements of the ribs and ventrals.

Contrary to the belief of many, a snake is not slimy, but is covered with dry scales, which are folds in the skin. There are no external ears and no eyelids. The sense of hearing is made possible by an internal auditory mechanism, and even this, according to scientific investigation, is very poorly developed. The eyes are protected by a transparent cap that is shed with the skin. The snake sleeps with its eyes open. The tongue is long, slender, and forked. It is not a stinger. It is the animal's best organ of touch, and is thrust out when it wishes to ascertain its whereabouts. The teeth which curve backward, are sharp and pointed, and are used in seizing food but not for chewing, as the prey is swallowed whole. Poisonous species have, in addition to the ordinary teeth, perforated fangs through which the poisonous fluid passes from glands at their base.

There are only twenty-two species of poisonous snakes in the United States; namely, the Harlequin Snake which ranges in the south Atlantic and Gulf States from South Carolina to Texas; the Sonoran Coral-Snake which is found in southern New Mexico and Arizona; the Copper-head which may be found from Massachusetts to northern Florida; westward to Illinois and Texas; the water moccasin or cottonmouth which is found along the Atlantic and Gulf drainage from Virginia to eastern Texas; several unimportant opisthoglyphs, which are small snakes, and fifteen species of rattlesnakes.

In this section of Kansas the only poisonous snakes that have been taken by the speaker have been as follows: four species of rattlesnakes, two belonging to the genus *Crotalus*, and two to the genus *Sistrurus*; *Crotalus horridus*, the timber or common rattlesnake, and *Crotalus confluentus*, the prairie rattler; *Sistrurus catenatus*, the Massasauga,

and a subspecies of *Sistrurus catenatus*, *Sistrurus catenatus catenatus*; the copperhead, *Agkistrodon mokasen*; the cotton mouth, *Agkistrodon piscivorus*, and one species of opisthoglyph, *Sonora semiannulata*, a small snake not over ten inches in length. The latter, while a poisonous snake, has its grooved teeth in the rear of the upper jaw and is not considered dangerous to man. The really poisonous snakes of this region may be recognized by the following characteristics: the pupil of the eye is vertical, and there is a pit between the eye and nostril. The rattlesnakes also have a tail terminating in a rattle.

For many years the people of the United States have used for snake-bite, the one great sovereign remedy, whiskey, prescribed in large doses. No one could devise a procedure that is more wrong and fatal in its consequences. Experiments have shown that alcohol in small doses increases the rapidity with which snake poison is absorbed by the body. Larger doses become an active aid to the poison and weaken the heart action when it most requires stimulation.

The Common Black Snake, King Snake, and water snakes are more aggressive than—and more likely to bite than the poisonous snakes. Most snake bites heal promptly without any symptoms of poisoning. Since most people think the all snakes are poisonous, whiskey has been administered. A person is less likely to die from whiskey alone than from a combination of whiskey and snake poison, and most people recover. Yet, should a person be bitten by a poisonous snake and whiskey administered, more death will occur than from the poison alone.

Scientific research, beginning with the work of Pasteur, has developed the only real specifics against snake poison in the modern anti-venins. Unfortunately each kind of venom requires a special sort of anti-venin, so that it is impracticable as a rule to carry anti-venin into the field.

The best method of procedure when bitten by a poisonous snake is to apply a ligature between the wound and the heart so as to prevent the blood from carrying the venom toward the heart. Incise the wound deeply in all directions and apply potassium permanganate. Sucking the poison from the wound is common practice, but there is danger of poison finding its way into the blood through abrasions of the lips or mouth, and besides, this procedure is of little value.

It is a widely held belief that the common aversion to snakes which amounts to violent fear in many persons, is instinctive in the human race. Thus the question, Is the Fear of Snakes "Inborn" or due to Education? Snakes have played an important part in the delirium tremens of literature. With a scriptural foundation aided by the old time immunity of Ireland the fear of snakes is exhibited at a very early age. Many students believe that this fear is due to being inborn; many others believe that it is the result of education or attitude of adults; and others say that it is due to both. There exists an undoubted gullibility as to the evil doings of snakes. From these beliefs it is easy to manufacture many fables. Superstition and fear is a tax on intelligence. We should in no way, more especially by that of awe, subjugate the reasoning powers. Dickens once said, "What a beautiful thing human

nature may be made to be." We might say in regard to snakes, What a fearful thing human nature may be made to be.

Investigation indicates that the fear of snakes is due to the attitude of parents, teachers, and other associates of the child. John B. Watson of John Hopkins University concludes that babies have fear but that there are few positive results in the reaction of children to their first sight of animals.

On the average, I find that the fear of snakes is much more frequent in older than in younger children. Anthropoid apes and, indeed, most monkeys, exhibit the same fear of snakes as is shown by man, but evidence exists to indicate that their fear is no more instinctive than the human. The instinctive fear of snakes in monkeys appears to be based on the example of frightened adults exactly as it is in children. If there are no legitimate reasons for fearing snakes why make the assumption.

Do snakes charm their prey? The common belief is that the snake's eyes so fascinate its bird or mammal victim that the unfortunate animal is made to advance toward the snake until it is drawn into the waiting jaws. It is possible that a small bird or mouse attacked by a snake might occasionally be unable to move from fright, but the behavior of mice when fed to captive snakes does not even support even this hypothesis. Mice and rats invariably display the most complete indifference to the presence of a snake.

Many people have been mystified by the professional snake charmer. Quite the most mysterious element in this so-called snake-charming lies in the apparent response of the snakes to music. There is an old English adage which says, "Deaf as an Adder," and the deafness of snakes in general seems to be supported by the most careful scientific experiment. The swaying of the snakes in time to the music is due to the swaying of the body of the performer and stops when he comes to rest. The charmer usually uses poisonous species, many times the cobra, because of its spectacular hood, and habit of raising the head and body. Many times the poisonous snakes are defanged, sometimes their lips are sewed shut, and sometimes they have full possession of their poison fangs. It is possible that some professional snake charmers are immune to the poison because of the repeated small inoculations.

Most snakes lay eggs, but it is a fact that many snakes give birth to living young. In the egg the growing embryo is nourished by a large food yolk. When the eggs are retained in the mother-snake's body, development takes place and eggs may be laid with embryos in different stages of development. Where the eggs are fully developed in the body, the young are then born alive. The young snakes when born alive are not nourished by the blood of the mother, but by the egg yolk. This form of development is known as ovo-viviparity.

In this section of Kansas the garter snakes, water snakes, the prairie rattler, and others, produce living young. A few of the snakes that lay eggs are the blue-racer, hog-nosed snake, milk snake, and green snake. Snake eggs are rather elongate and have a leathery shell.

It is believed that the age of a rattlesnake may be told by the number of rattles they possess. This is true when the rattle is complete with the original button with which the snake was born, yet the number of rattles varies with the amount of food taken by the snake, so that the average of three rattles per year is subject to fluctuations.

A very common belief in many parts of the country is that rattlesnakes may be found in prairie dog colonies, living in peace with the prairie dogs and burrowing owls. Since the rattlesnake is very fond of small animals as an article of diet, it is very doubtful that a meeting of a rattlesnake and a prairie dog will be anything but peaceful.

A belief in the South-west is that a rattlesnake will not cross a horse-hair rope, or chalk line. There seems to be no truth whatsoever in this belief.

Another snake found in Kansas bears an evil reputation. It is known by many names such as "Spreading Adder," "Spread Head," "Puff Adder," "Blowing Viper," "Hog-nosed Snake," and "Blow Snake." Stories are told about this snake being able to blow its venom from a considerable distance into its victim's face, causing blindness, and convulsions. There is no truth in any of the above beliefs.

It is a non-venomous and entirely harmless, but when disturbed it flattens and widens the head and raises the anterior third of the body from the ground. It faces its enemy. The lungs are filled with air and if the intruder approaches nearer, the snake lunges viciously with loud exhalations of the breath. This is nothing but good American bluff. If this does not frighten the enemy, the snake tries another method, that of "playing possum." It writhes and squirms, opens its mouth, the tongue hangs out, turns on its back, ceases to move, and is apparently a dead snake. "So cleverly and patiently does the snake feign death that it may be carried about by the tail, hung over a rail fence, or tied into a knot. There is no sign of life. If placed on the ground on its crawling surface it immediately turns upon its back again and becomes limp and lifeless. It appears, according to this snake's reasoning, that to look thoroughly dead it should be lying upon its back." If a person moves some distance away, the snake seeing no further alarm, raises its head, quickly rolls over upon its abdomen and glides away.

The milk snake has been credited with the ability to be able to suck milk from cows. This feat is practically impossible. The flow of milk from cows is liable to vary, due to natural causes. If the owner should happen to see a few snakes frequenting barns or pastures, drinking milk from the cat's saucer, or the milk leaking from a cow's udder, he would suspect that the snake was the cause of the cessation of the flow of milk. The Milk Snake and the Gopher Snakes are the species taxed with sucking cows.

It is an absolute impossibility for a snake to fasten itself to a cow's udder and suck milk. Imagine the reaction of the cow, were a snake to fasten its six rows of needle-like recurved teeth to the udder. The animal would be driven to a frenzy, and the snake promptly dislodged.

The Glass Snake or Joint Snake is a harmless reptile, snake-like in

form. People say, and some believe, that this snake will fly into pieces when struck with a stick. The pieces are said to reunite and crawl away if left undisturbed. There is some basis of fact as far as a part of the animal breaking into a few pieces. The Joint Snake or Glass Snake is not a snake at all, but a limbless lizard with a snake-like form. It may be easily distinguished from a snake by the presence of eyelids and ear-openings, as well as by the small scales and long tail. Most lizards are able to lose their tails without serious injury, and in so doing escape while their enemies are dealing with the tail. The loss of blood is prevented by the muscle bundles closing the arteries at the breakage point. There is no truth in the story that the pieces will join together again. After the escape of the lizard it is able to grow a new tail.

Time will not permit us to give a detailed discussion of all of the beliefs and truths about snakes. Yet, something should be said about one more reptile, the Hoop Snake. It is said and believed by some people that this large snake takes its tail in its mouth and rolls like a hoop. This same snake is supposed to have a venomous sting, and when the animal is irritated, it launches itself tail foremost, at an enemy. They believe a person injured by this sting dies immediately, and trees and plants when struck by this snake wither and die. Nothing could be more fanciful and fantastic. The only snake that meets with the above description is the Horn Snake, whose tail ends in a horny spine. The truth is, however, that no matter how much the tail of a snake may look like a sting or act like one, no snake has a poisonous weapon in its tail. The belief that a snake rolls like a hoop is nothing more than a fable.

In conclusion let me state that as a class snakes are useful. They destroy a large number of injurious insects, mice, rats, and other mammals. The water snake and a few others are injurious in that they destroy birds and fish. Most snakes can swallow prey larger than their own bodies. They are cold blooded, and not slimy. The glass snake is not a snake but a harmless, legless lizard. There is no snake that rolls like a hoop. They cannot jump from the ground. The tongue is a feeler and not a stinger. The death of a snake has nothing to do with the setting sun. The "hoop snake" and "milk snake" exist only in fiction. Horsehairs do not turn into snakes. Rattlers do not add one rattle per year, and the teeth are not for chewing or biting, but to prevent the escape of the prey.

In this region the only dangerous ones to handle are the cottonmouths, which are very rare, the copperheads, and rattlesnakes. This is, indeed, an interesting world in which we live.

SOME PHASES OF LATIN AMERICAN HISTORY

By Oren A. Barr. Professor of History

The region south of the United States from the Rio Grande to Cape Horn has been designated by various names, some of which were used at times to emphasize some intended differences and at other times just for the sake of variety. *Hispanic* or *Spanish America* emphasizes the Spanish influences; *Ibero-America* limits the racial elements to Spain and Portugal; while *Latin America* recognizes the Romance elements — French, Spanish, and Portuguese — in the composition of the colonies and of the resulting culture. Latin America is the term most commonly applied to the homeland of our southern neighbors.

The region is so extensive and its surface so varied that it can be described only in the most general terms. Its area in square miles is about 8,400,000, which is nearly three times the area of the United States (exclusive of Alaska) and is more than half the size of the New World. About three-fourths of its surface lies in the torrid zone; north Mexico being in the north temperate, and Uruguay, southern Brazil, and the greater parts of Chile and Argentine being in the south temperate zone. Climatically, Latin America is handicapped in the development of an extensive white civilization under the present assumption that the torrid regions are only for the colored races. The surface is rather diversified. A chain of mountains extends along the western coast from northwestern Mexico to the Strait of Magellan. Their ruggedness and in places their height have proved a great obstacle in transportation of commodities from the Atlantic to the Pacific, as they have not been crossed by railroads and canals in over a half dozen places. In southeastern Brazil there is a rather important range, the San Francisco Mountains, whose highlands cover probably a fourth of the republic and are the seat of the Brazilian coffee industry. There is a third highland in eastern Venezuela and the Guianas.

The rivers are few, poorly distributed, but large. There are no important rivers flowing into the Pacific, although the coast line is broken by many short turbulent mountain streams so small and erratic that their mouths are not suitable for harbors. The Atlantic slope is far better provided with rivers. Along the northeastern boundary of Mexico is the Rio Grande. Although rising in the United States and having most of its tributaries therein, it is usually spoken of as a Latin American stream. Flowing out of northeastern Columbia is the Magdalena, navigable in three sections for about nine hundred miles and draining probably two hundred thousand square miles. The Orinoco flows out the northeastern portion of South America; it is navigable in two sections for about fifteen hundred miles and drains almost four hundred thousand square miles. Out of the centre of the continent flows the Amazon four thousand miles eastward into the Atlantic; it with its tributaries furnish an inland navigable system of over twenty

thousand miles and it drains a fourth of the continent. The La Plata in the southeastern portion of South America is in reality an enlarged estuary two hundred miles long and receives the two important rivers, Parana and Uruguay, each of which are navigable for hundreds of miles into the heart of the continent. With the exception of the Rio Grande all the important rivers are wholly or in part within the torrid zone. If climatic conditions were favorable, the Orinoco, Amazon, and La Plata rivers could be developed into the greatest inland water-way transportation system in the world. The western coast line is rugged, forbidding, and has only a few good harbors, while the eastern coast has numerous inlets, coves, and estuaries to provide harbor facilities for a highly developed coastal and maritime trade.

The natives of Latin America and Anglo-America are undoubtedly of the same race. It is commonly believed the Indians are of Asiatic origin as they show many Mongoloid characteristics and but few if any Caucasian or Negroid traces. The Aleutian Islands or the narrow Bering Strait offers a short, safe, and convenient passage between Asia and America. The great linguistic diversity among the numerous groups seem to indicate there has been a long separation from whatever source they may have come, and that the various groups have lived isolated one from the other with little if any contact with other groups. The number of groups have been variously estimated as one or another basis of classification has been employed. Using language as a basis there have been found fifty-six linguistic stocks in Anglo-America and one hundred thirteen on the mainland of Latin America. Indian culture in Latin America for the most part was similar to that found by the Jamestown and Plymouth colonists: the Indians lived in crude temporary wigwams, roamed about in quest of food and game, or made war against their enemies. But in Latin America, a few groups had passed far beyond this drab and commonplace existence. The Aztecs in the vicinity of Mexico City had a highly organized government; they were skilled in growing Indian corn, beans, peppers, gourds, cotton, and fruits; they made ornaments of gold, silver, copper. They had an organized priesthood which controlled their religious rites and directed education. They erected many magnificent pyramidal temples to their gods—the sun, moon, wind, war, etc. The Mayas in northern Yucatan were more highly civilized than the Aztecs. It is thought that the Aztecs appropriated freely from the Mayas. Archaeologists are revealing that the Mayas excelled in architecture, sculpture, mathematics, and astronomical knowledge. The Mayas had reached their height about 700 A. D. and had fallen in decay when the Spaniards found the Aztecs at their height.

The Chibchas in Colombia and adjacent territory at the time of the coming of the Spaniards were living in wood or reed houses plastered with clay; they had a fairly accurate calendar; were employing irrigation in their agriculture; and were skilled in the use of copper and gold. In their religion there was included a mythical white man, a deluge, and an Atlas. Recent excavations have revealed some ancient re-

mains and have raised some interesting problems as to time and source of the Chibchas in this region. The last important group to be considered is the Incas. Their number is usually estimated in colonial times at from eight to ten million. They inhabited the western slope of the Andes from the region of the equator to about twenty-seven degrees south latitude. Their government as well as their social organization were based upon kinship, the family, the clan, and the tribe. They practiced a highly developed system of agriculture using irrigation and fertilizers. Maize, potatoes, peppers, and manioc were common products of their farms. They had domesticated the llama, dog, guinea pig, and certain birds. Pottery was carried to a high degree of perfection although the potter's wheel was unknown to them. Gold, silver, and copper were generously wrought into the finest ornaments and into many common utensils for the altar and the home. In their religion, they worshipped the Sun, various forces in nature, spirits, and the dead. These four groups represent those Indians having highest civilization. Many of other groups have some characteristics of enlightenment while others practice trades of crudest savagery. The total number of Indians in Latin America in the fifteenth century has been variously estimated from twenty to thirty million.

The Spanish colonial system did not permit or allow general migrations to their possessions; therefore few women accompanied the colonizing enterprises to Spanish America. In an absence of women, the men freely made alliances with the native women, and as a result the dominant racial element in Latin America is the Mestizos—the product of the union of the Spanish and the Indian of whatever degree of mixture. The pure Indians are next in rank with a number slightly greater than the whites. The negroes constitute practically the whole population in Haiti, and equal or exceed the number of whites in Brazil. The mulattoes control San Domingo, and are numerous in other islands of the West Indies, the northern coasts of South America, and Brazil. The Negro element is so large in Brazil that there has been considerable crossing of the Indian and the Negro, the result of which is known as *zambos*. The whites, the Indians, and the Negroes have lived together so intimately during the colonial period that there exists now little if any race consciousness, and marriages take place freely between any or all of the various race elements. The pure Indians and the pure whites are becoming relatively fewer, and many students are convinced that in time two new races variants will appear in Latin America; one in the Spanish portion, a white-Indian, and in the portuguese, a white-Indian-Negro. It is obvious a race problem could not exist in such an environment.

The Latin Americans are thus more tolerant of radical differences, but they are very insistent in their observance of social distinctions. Persons of the same rank or social status freely intermarry and intermingle socially and politically. While it is rare for a white to marry a pure Indian or Negro, it is because they are of different social ranks; in like manner it is seldom in aristocratic Europe for a nobleman to

marry a commoner. There are really only two classes in Latin-America—the rich and the poor. One of their greatest needs is a large well-to-do middle class to give direction, balance, and stability to social and public affairs. The leading basis of rank is wealth which originally and now was and is based upon the possession of land. In colonial days the crown granted immense regions to its favorites or to the Church, and the spirit and the basis of that aristocracy persists today. By the census of 1910, seven thousand families in Mexico owned nearly all the fertile soil, or an average of about sixty-four thousand acres a family. It is said the Terrazas estate in the state of Chichuarua contains over thirteen million acres, a region one-fourth the area of Kansas. One Yucatan estate contains fifteen million acres. In Argentina there are twelve thousand tracts containing from twenty-five thousand to sixty-two thousand acres. In Chile the tillable soil is held by seven percent of the population. Similar conditions exist in the other portions of Latin America. The poor are landless and are dependent upon their landlords for their very existence. And a bare existence is all the great mass of the people can hope to have; as their wages or returns from their labor are wholly inadequate to provide ample food, decent living quarters, and educational opportunities. This is shown by the ratings of illiteracy of certain typical countries: In Argentina forty per cent over six years of age are illiterate; Bolivia, Brazil, Peru, and Venezuela show eighty per cent; Mexico, seventy per cent; Latin America in 1912 had one person in twenty of its population in school; but this means little, as the rural schools are scattered, brief and very poorly organized.

The high percentage of illegitimacy in Latin America is surely related to the poverty and ignorance of the mass of the people. Inman states that the extent to which marriage is ignored is one of the most noticeable social phenomenon of Hispanic America. In Bolivia, 1910, twenty-eight per cent of the army recruits were born out of wedlock. Some typical illegitimacy statements are: Lima fifty-one per cent.; Chile Thirty-eight per cent.; Concepcion (Chile) fifty-seven per cent. Paraguay (1916) fifty-eight per cent. Even with exceedingly high illegitimacy, prostitution is recognized, regulated, and with alcoholism, is one of the two outstanding social questions of Latin America. Sex has loomed large as a social factor in Latin America, and much could be said on that subject, but that is a subject for the sociologist.

As one looks at the immense area of Latin America and takes note of its unlimited natural resources—fertile soils, virgin forests, and mines, one is likely to see therein the greatest material development in human activity of any other equal area on the earth's surface; but when it is considered that over three-fourths of the region lies in the torrid zone, a zone so far undeveloped by white man, then one wonders just how much of it can be developed and to what degree by a people of whom fewer than one-fifth are pure white. These facts must be taken

into account in considering the future greatness of Latin America and our relations with them.

The educational, economic, and political phases of Latin America are just as interesting and probably more important than the geographical, racial, and social that I have thus briefly discussed.

CO-OPERATIVE FACULTY STUDY ON COLLEGE TEACHING

Note—During the past year the K. S. T. C. faculty, working through six voluntary committees, made a co-operative study of college teaching. As an example of the studies made, the following reports, given by members of the committee on "The Purpose and Effectiveness of Various Techniques Used in College Teaching" are here printed with the thought that they may be of interest to *Techne* readers.

THE LECTURE METHOD

By Paul Murphy

In spite of the many objections that have been raised to it, there is probably no teaching device that is more widely used at present than the lecture method. Almost from the moment of its inception as an academic technique, it has been the target for much adverse criticism. Even Socrates inveighed against its use by the Sophists and many educators since have repeated the attack. Its alleged disadvantages are legion. It must be realized, however, that many of these criticisms apply more largely to the lecture method as it is used by unskilled teachers rather than as it might be used by individuals better versed in its possibilities. And it hardly seems fair to pass upon the merits of a method at its worst rather than its best.

From a more positive point of view the lecture method appears well adapted to use in certain situations and under certain conditions. Klapper says, "It must be admitted that with an effective lecturer, possessed of commanding personality, the lecture gives a point of view of a subject and an enthusiasm for it which other devices fail to achieve. The lecture method makes for economy of time and enables one to present his subject to his class with a succinctness absent from any textbooks. Where much must be taught in a limited time, where a comprehensive view of an extensive field must be given, when certain types of responses or mental attitudes are desired, the lecture serves well."¹

It might also be added that the lecture method can be used to good advantages in elementary courses where the purpose of the course is to present a body of fundamental knowledge to students who have had little or no previous contact with the material. Under such conditions it seems absurd to expect students to make any valuable contributions to the subject through the medium of discussion or seminar techniques. The instructors can point out and summarize the import-

¹Klapper, Paul. *College Teaching*. World Book Co., 1920

ant information of such a course much more quickly, effectively, and accurately than could ever be done by uninformed students.

Certain principles must be observed however, if the lecture method is to be of maximum worth in any situation. In general, these are the principles of effective public speaking. Quite obviously, one of the fundamental requirements of a good lecture is that it must be well-organized and point toward a definite goal. There has been some discussion as to whether the objectives of the lecture should be set forth at the beginning or at the end of the hour. Students express themselves as preferring both and there would seem to be no good reason why the lesson should not be summarized briefly at both times. It would seem to be a good idea to call upon students occasionally to summarize the main points of the lesson at the end of the hour. Very frequently the objectives of a lecture can be stated at the beginning of the hour in the form of a question or questions to be answered. This creates an expectant attitude in the student's mind that does much to sustain interest. It is advisable, however, to answer the questions once they are raised.

A second factor upon which the effectiveness of the lecture method is contingent is the ingenuity and frequency with which the lecturer makes the application of general principles to specific situations. One of the biggest problems in higher education today is the problem of how to effect a more adequate carry-over of learning from the classroom to actual life situations. A good deal could be done to solve this problem if the teacher would make more of an effort to point out the possibilities and points of such transfer in his teaching, by citing specific cases and examples. The liberal use of examples and illustrations will also aid greatly in sustaining the interest of listeners and will thus help to motivate learning. Borden, in his late book, *Public Speaking—As Listeners Like It*,² says, "The body of your speech must be keyed to one relentless audience demand—for instance." A recent study of the kinds of history material remembered and forgotten by high school students showed that history which is made concrete and personal tends to be well-remembered, while material of an impersonal and abstract nature tends to be forgotten more readily.³ The use of visual materials such as blackboard illustrations, outlines, charts, film aids, and the like can add much to the lecture in making it more concrete and detailed.

Much can be done to meet the criticism that the lecture method leaves no permanent impression upon the mind of the student by providing for properly spaced reviews. In a questionnaire study conducted by Rohrbach concerning methods of making teaching more effective, students

²Borden, R. C. *Public Speaking—As Listeners Like It*. Harpers, 1935.

³Bassett, S. Janet. *The Retention of History in the Sixth, Seventh, and Eighth Grades, with Special Reference in the Factors that Influence Retention*. Johns Hopkins Press, 1928.

reported that brief oral or written quizzes at the beginning of a class period, which are discussed and corrected in class, are very helpful. They urged more reviews.⁴

The encouragement of an adequate and careful system of note-taking by students would seem to be justified in connection with the use of the lecture method. This is particularly true if the student is to be held responsible for the material covered by the instructor in his lecture—and there would seem to be no good reason why he should not. Requiring such a set of notes will do much to offset the criticism that the lecture method tends to discourage student activity and to lull him to sleep. Note-taking, even though it may not be anything more than jotting down the instructor's statements verbatim, at least requires that the material be reacted to in terms of definite motor activities rather than in terms of mere passive mental acceptance.

It has already been suggested that the manifestation of some enthusiasm for his subject on the part of the lecturer is desirable. It is probably true that the presentation of information in a forceful, enthusiastic manner by a well-informed instructor can be just as stimulating and impressive, if not more so, than when it is presented by the discussion, quiz, or recitation method. And there is something to be said for the fact that such material can often be presented with considerably more accuracy by the lecture method than by most other techniques. After all, the student does not necessarily have to "talk back" to the instructor in order to react to or to be impressed by study material. He may be considerably more stimulated to creative thought and activity by sitting and mulling over in his mind the new points of view and new vistas of thought constantly being propounded by an enthusiastic and well-informed lecturer than he could ever be by discussing such topics with other students no better informed than himself.

The use of proper methods of making assignments is especially important in connection with the use of the lecture method. Foster, in a comparison of lecture vs. class discussion, suggests that "for the lecture method, the assignment should aim at such activities as rethinking, organising, interpreting, expanding, and investigating. Devices must be worked out for checking, evaluating, stimulating, and individualizing the student's performance of assignments, as well as for adapting the lecture each day to needs disclosed by student performances and evident needs. The lecture and student-reactions should be reciprocally determinative. An intelligent use of the true-false test, the completion test and the like can be made especially helpful here."⁵ It should perhaps be added that material covered in the assignment can frequently be made

⁴Rohrbach, Q.A.W. "How College Teaching Can Be Made More Interesting, As Viewed By the Student." *Studies in Education*, Yearbook XVI of the National Society of College Teachers of Education. University of Chicago Press, 1928.

⁵Foster, H.H. "Lecturing vs. Class Discussion." *School and Society*, 21, 1925, 386-387.

to add to rather than merely repeat and re-hash material covered in the instructor's lectures. There is some virtue in the regurgitation of textbook material by the instructor in his lectures, but there is considerably more in supplementating such textbook material with new evidence and new information not to be found in the text.

And finally, it goes almost without saying that the material presented in the lecture should be presented at the student's level of comprehension. Rohrback's study, to which reference has already been made, revealed that one of the practices that is most apt to destroy student interest is using a weighty vocabulary. Other practices that were condemned by students in this same study were: (1) calling on students alphabetically, (2) ruling out of order a student because it is not his alphabetical turn to recite, (3) demanding reports or notebooks and returning them without any criticism or evaluation, (4) insisting on student's "handing back in quizzes" practically verbatim what has been presented in lectures, (5) bluffing on the part of the instructor, (6) insisting that students search for material that teachers need in order to write articles and books, and (7) insisting on comprehensive note-taking.⁶ Of course, it is probably true that students do not always know what is good for them, but if there is anything to the idea that interest or readiness to learn is one of the fundamental bases of learning, some consideration should be accorded these suggestions.

THE CLASS DISCUSSION

By Gordon Eaker

The class discussion method of teaching aims to bring students to class prepared not to listen to a pseudo-learned lecture but to match the impressions that he has gleaned from his reading with those of his instructor. This method encourages students to read more carefully and thoughtfully the assigned material, with a view to answering questions about it in class. Such a method should develop initiative on the part of the student and in time enable him to teach himself, as he should do in later life.

The discussion method affords the instructor a splendid opportunity to guide the student in his reading and mental growth. Immature students do not always know what to look for as they read, what they should remember, or the full significance of the ideas that they encounter. They must be taught to think more as they read, to bring more associated ideas to bear, and to relate their reading to life. In the ability to do this lies the difference between Coleridge's reading of Shake-

⁶ibid.

speare, let us say, and another's. Every person brings a different mind to his reading. Oftentimes the great truths discovered by the thinkers of the past are concealed until someone comes along with a mind worthy of them. As Sir Philip Sidney wrote, "Mysteries are contained in poetry, which of purpose were written darkly, lest by profane wits they should be abused." What is true of poetry is of course true of other subjects, and one of our tasks as teachers is to help the student unlock such mysteries. Indeed, there is no small thing involved in the meeting of the student's mind with the master mind of any good writer.

The operation of the class discussion method is simple. In assigning the lesson, the teacher asks the class to look for ideas interesting or significant and to come to class prepared to match impressions. In class the teacher emphasizes the student's reaction; he asks questions to learn what happened to the student's mind in its adventures among the masterpieces. That which happens in the student's mind is the important event in the education process. Finding what the student missed or failed to comprehend in his reading, the instructor can add points or show the hidden significance of the ideas that were caught. This method gives the instructor an opportunity to impart additional information without having the student realize that he is being "lectured." Speaking at a time when the student has already shown an interest, when his mind is most receptive, the instructor thus builds on solid ground.

To match ideas, the instructor should know his material and be full of enthusiasm for his own impressions. The discussion should be kept lively and interesting; it should be guided toward a definite aim, with digressions or irrelevant remarks curbed. An outline of questions may be needed. Then, to develop reasoning powers and a sense for logic in the student, an attempt should be made to trace cause and effect during the discussion.

There are at least four advantages in the discussion method. First, it develops resourcefulness and independence in the student. He learns to dig for facts and interpretations and to rely on his own impressions instead of expecting to have ideas handed out to him. Secondly, the student is active and participating; he is kept alert and interested in comparing his classmates' reactions with his own. The spirit of emulation is raised. The good student likes to match wits with his instructor and win his approval. Thirdly, the method places the student more on a level with the instructor. Students can raise questions, contradict, express their own ideas, and learn wherein their ideas should be modified. Fourthly, the method aids the search for truth. As in a Socratic dialogue, there is a constant tacking and veering and shifting of point of view as a new phase of the truth is sought. Since truth is usually complex and many-sided, perhaps a discussion best brings out its varied quality.

There are, to be sure, disadvantages in the method, that one should be warned against. A discussion is hard to guide, and, if it is not properly handled, it may waste time. Or, if students do not volunteer

readily, a discussion may be hard to keep going. Only the brighter students participate unless an effort is made to get them all in. Usually, the teacher can not impart so large a body of information in the given time as he could by lecturing. Finally, the discussion may not be so well organized as a lecture. Irrelevant statements are bound to be made, and time will be used in correcting errors in fact or interpretation. But surely, correcting errors is good teaching, and this is not a serious disadvantage.

In fact, the disadvantages of the discussion method, in general, seem well outweighed by the advantages of the method. We may conclude, therefore, that although the discussion method should alternate with other methods as the circumstances dictate, there is no question that, wisely used, it is an effective teaching method.

WRITTEN EXAMINATIONS

By Elmina E. Graham

"If to do were as easy as to know what were good to do, chapels had been churches and poor men's cottages princes' palaces." If to teach were as easy as to know how to teach, students would make better progress. But even under present conditions, how is the instructor to determine the progress of his student? Usually by either oral or written examinations.

During the last several years, much has been said for and against examinations, and there may be more to say on both sides. The circumstance suggests Izaak Walton's statement that "Doubtless God could make a better sport than fishing, but doubtless God never has made a better sport than fishing." Perhaps the school men could make a better measuring stick than examinations for determining the progress of students, but up to the present time, they never have. We shall, therefore, not spend time in arguing for or against examinations, but shall discuss benefits derived from various kinds of examinations.

Since the publication of Horace Mann's learned plea for written examinations instead of oral, methods of giving written examinations have, for good reasons, undergone several changes. The earliest form of written examinations was the essay type with its limitations and values. Finally the time-saving objective tests were devised.

Just what are the objectives of giving examinations? Green and Jergenson state that the chief goals to be served by educational tests in the classroom are the improvement of instruction, and also the improvement of learning through the collection of more detailed and more accurate information concerning the existence and the cause of individual difficulties in learning.

In general in any field of endeavor, the most efficient results are attained when the worker has definite goals toward

which to work, and dependable instruments for determining his progress. A definite aim enables the worker to direct his efforts more efficiently towards the particular task to be accomplished.

To obtain the best results for the student, examinations should be given frequently and should be short. The following are basic claims for short, frequent examinations:

1. They provide an accurate basis for the measurement of educational accomplishment.
2. They serve to motivate pupil learning.
3. They give the pupil training in organized thinking and in systematic expression of thought.
4. They contribute to educative progress because they call upon the student to organize systematically his facts and to express his ideas about the subject.

The following is a summary of the motivation values of examinations:

1. The motivation value of an examination varies with the esteem in which it is held by pupils. The more impartial and objective the examination marks, the more meaning they will have for the pupil.
2. Examinations should come at *frequent* intervals, and should not be confined to end-of-semester and end-of-year testing. To examine extensively, but infrequently, delays the day of reckoning so long as to make the *goal* too remote to stimulate the pupil. It also encourages the cramming attitude, which is of doubtful value.
3. Where tests and examinations come at frequent intervals, it is possible for the pupil to keep *cumulative graphic* records of his achievement. Such records form one of the strongest forms of motivation which we know today. Experimental psychology has repeatedly demonstrated that *output* with *knowledge* of results is markedly greater than is the case where the learner is kept in ignorance of his successes and failures.
4. When tests are of a detailed, specific, and diagnostic character, pupils cease to regard them as drugery, but come to depend upon them for *guidance* in remedying their weaknesses, and as *preparation* for future opportunities to better past records.

Tests, both essay and objective, when properly prepared and given, are a help to both the teacher and also the student. The essay test has its limitations in that it taxes the time and strength of the students too severely, and in that the teacher's markings vary too greatly. On the other hand, the essay type is beneficial in that it calls on the student for comparison and interpretation of facts, and also it tests the youth's ability to make use of knowledge. But on the whole, the objective or standard tests obtain better results because they represent an attempt to control or standardize the conditions of the examination as to time allowance; they are objective and impersonal in

that they eliminate the personal equation of the examiner; and they provide norms for standards by which scores of individual pupils may be evaluated and interpreted in the light of facts.

THE CLASS DEMONSTRATION

By Bertha A. Spencer

Demonstration teaching is used in the shop and the laboratory for the purpose of presenting approved methods of procedure. It aims to promote skillful performance on the part of the student in the handling of tools, materials, and tool processes. It sets up standards of accomplishment and aims to arouse in the student a desire to acquire a high degree of skill.

Since the demonstration should be given at the time the student feels a need for it the class demonstration is weak, because it is impossible to so time it to meet the immediate needs of all the students at the right time. This is because of the difference in problems chosen by the students, and variations in speed and general learning ability. For this reason many instructors use group or individual demonstrations as the need arises. Close supervision will determine how much of this type is needed.

The demonstration to be successful must be well organized and move along smoothly. All tools and materials to be used must be at hand. The demonstration should be confined to a single unit of work. It should be definite, clear, and to the point. The instructor should follow up the demonstration with questions or other means of checking up to see whether the demonstration has served its purpose. Important points involved in the demonstration should be reviewed to see that students have correct ideas of procedure and are encouraged to proceed with the work.

DIRECTING THE SEARCH FOR INFORMATION

By William T. Bawden

If we think primarily of that phase of industrial arts which is concerned with construction or the making of things, I might well have been asked to discuss one of the other teaching techniques which you have heard presented this afternoon; namely, "Demonstration Teaching," or, the "Laboratory Method."

However, one of the major objectives of industrial arts instruction is to promote interest in and to impart knowledge about modern industry, its materials, methods, and processes; and, further, to develop some appreciation of the products of industry. From this standpoint, industrial arts possesses a content of information and knowledge

which is far beyond the capacity of any instructor to transmit to his students by the lecture method, or through class discussions, or by any other of the teaching techniques which has been suggested in the report of the Committee up to this point. The assignment which has been given me, therefore, is quite appropriate to the subject which I represent in the Committee.

One of the techniques used in teaching, which must be used in industrial arts as in all other subjects, may be described as, "Directing the search for information, and determining the results of the assignment by checking reports submitted."

EXAMPLES

1. The pupil may be handed a written assignment to read up on a specified topic, and to submit a written report, or to make an oral report to the class. Or,

2. The assignment may include an outline, which is to be followed in preparing the report. Or,

3. The assignment may include a series of questions which are to be answered specifically in the report.

4. The assignment should include specific references, or at least suggestions. For advanced pupils, the search for sources may be a part of the assignment.

AIMS

1. To provide the student with experiences in following written instructions.

2. To provide experiences in problem solving.

3. To provide experiences in the technique of locating, interpreting, and appropriating information.

4. To give some insight into the extent of the field of knowledge represented by this school subject.

5. To stimulate interest which will lead to self-activity.

DIFFICULTIES

1. Time required for checking reports.

2. Lack of suitable reference material.

3. Resistance to the idea of self-activity.

CONCLUSION

Our committee has presented and discussed briefly six teaching techniques, selected for the purpose from a much larger list. Applying these to the activities of the industrial-arts shop teacher, it can be shown that he must use all of them, as well as a number of others that have not been mentioned in this discussion. The teacher of mathematics, the teacher of science, the teacher of language, and others, make similar applications, and arrive at the same conclusion.

It seems to me, therefore, that the significance of this discussion to

us, as members of the faculty of Kansas State Teachers College, is that *there are many techniques of teaching*, and that our task in the professional preparation of teachers involves the sending out of graduates who understand that there are many techniques of teaching, who know what these techniques are, who have achieved mastery of at least a few of them, and who realize that success in teaching is based in part on such mastery.

Further, the art of teaching consists in diagnosing each learning situation as it arises, selecting one or more of the available or potential and appropriate teaching techniques, and making the application to the situation with such skill that the problem is solved, the knowledge gained, or the skill acquired, as the case may be.

This discussion also furnished a conclusive answer to those misguided folk who erroneously contend that, "If you *know* your subject, you can *teach* it!" On the contrary, our Committee has demonstrated that something more is necessary. There is nothing in the study, or even in the mastery of physics, or geography, or Latin, or mathematics, that leads to the discovery that there are 10 or 12 possible techniques involved in the teaching of any one of these subjects. The successful teacher must not only master the subject he is to teach; he must master the art of teaching it; and we have shown that these are not the same thing.

THE TREND

RESOLUTIONS ADOPTED ELEMENTARY EDUCATION

CONFERENCE 1936

Whereas, many vital problems have been considered in this Conference, therefore be it resolved:

1. That a preliminary period of at least one-half year be provided in the first year of school during which time attention shall be given to experiences which are needed for guidance during the maturation of children who have not reached the stage of development necessary for satisfactory progress in regular school work.

2. That the elementary school, because of its relationship to the other units of the school system, because of the importance of the development of the child at the most formative period of his life, and because of its universality, be recognized as the basis unit of the school system and that it be given the same consideration as to equipment, teacher qualifications, and salary, as any other unit in the system.

3. That we express our appreciation to the University of Texas for providing facilities for this Conference, to the speakers for their contributions to the program, to Mr. Darnell for his untiring efforts in planning the program, to Dean Pittenger for his many suggestions and valuable advice on matters concerning the conference, and to state papers for splendid work in reporting the proceedings of the Conference.

4. That a Division of Elementary Education be established in the State Department of Education and that an outstanding person in ele-

mentary school work be placed in charge of this division.—The Texas Outlook.

Educators will find in the Fifteenth Yearbook of the Department of Elementary School Principals—Personality Adjustment of the Elementary School Child—material on the nature of growing children, on the many environmental factors which influence pupil adjustment, and on the methods of diagnosing and correcting maladjustments.

Mental and social maladjustments cause tremendous human waste and suffering in the United States each year. Recent surveys by a large life insurance company indicate that nervous and mental diseases constitute 12 percent of all the illnesses reported. In the complexity of modern life, serious strain is frequently placed upon both adults and children. This condition often leads to mental and emotional maladjustments. There is need for study and for interpretation of behavior in the light of child nature and social conditions. Childhood is the period of greatest opportunity for personality adjustment.

The procedure followed in compiling this volume is unusual. Feeling that specialized knowledge was essential, a large number of child-guidance specialists were asked to contribute articles on special topics. In addition several selected contributions by school people were included to give a better balance and make a more helpful volume.

—Connecticut Teacher

The consensus of opinion among educational leaders seems to be that our program of relations with the public may have three aspects, namely; (1) to acquaint the public with the school program—the services which the schools are trying to render; (2) to discuss and advance the cause of sound legislation for the support and development of education; and (3) to participate in the development of a critical but constructive attitude toward government itself. In the first and second of these approaches we have made definite progress—in some sections of the state more than in other. We have need to continue and enlarge upon such activities. However, the third approach has been comparatively unexplored in this or other states. In the opinion of the writer that phase of the program is basic to all that we hope to accomplish. It may be quite possible to have a strong public desire for and support of education while at the same time a public attitude on political and social issues which, when reflected in legislation, may tend to cancel the whole effectiveness of the educational program.

—Calvin J. Nichols in Washington Education Journal

CHILD WELFARE

Believing that the aim of the schools and the community is the building of strong minds in strong bodies, we urge a close co-operation between these two agencies in foundation of a strong health program for the child. We commend all bodies contributing to the physical, mental, and moral welfare of the child.

We advocate the enrichment of school curriculum in the interest of cultural, vocational, and recreational needs and civic responsibilities of the child.

We recommend a close co-operation among teachers, citizens, and officials in combating crime, not only as a protection for our children, but as a guarantee of the preservation of our democracy.

We heartily endorse the present compulsory instruction regarding the effects of alcohol and narcotics upon the human body.

We approve the safety and health education program as outlined by the state legislature, and recommend that increasing emphasis be exerted in this field. We commend all agencies that have contributed to the safeguarding of the lives and health of school children.

We endorse all appropriate legislation in regard to Child Labor.

We approve the principal of the NYA, and recommend its continuance with such adjustments as will make it truly educational.

FINANCING SCHOOLS

We believe that the financing of our public schools is of paramount concern, basic to the immediate public welfare of the state. We commend the state for its action in assuming the responsibility of a partial payment of school costs through a state wide non-property tax. We urge the payment of the full \$600 per teaching unit as provided in the law at the earliest possible date.

We believe that the Federal Government should give assistance to the states for the equalization of educational opportunity and for promoting new and desirable educational activities in accordance with the following principles: (1) Appropriations made directly by Congress to states; (2) distribution by a method prescribed by law and not at the discretion of any Federal official; and (3) administration, supervision, and control reserved for the states.

—From Resolution of the Indiana State Teachers' Association

GERMANY. In the year 1933, 115,722 students attended the German Universities. In the year 1935 the number was 89,093. All the German Universities together have 2,120 orderly professors and 3,810 other teachers and lecturers. At the technical colleges there are 585 orderly professors and 980 other teachers.

RUSSIA, in the year 1914 has on the territory of the now Soviet Union about 900,000 high school pupils, in 1935 there were 5,800,000. From among these 1,000,000 attended the so called "Full high school" which makes possible the entry to the university. About 1,000 workers faculties were attended by 400,000 students, who worked in factories during the day and in their free time prepared themselves for entrance to the university.

CHINA with her 200 million illiterates among her population of 400 million, prepares for a very great plan to teach, not only the children, but all adults, to read and write. Of the approximately 30 million

children of school age, 14 million visited school in the last year. In the school year 1936 compulsory education will be introduced.

BRAZIL. 90% of the teachers of all the state schools in Brazil are women. In the public state schools only 1% of the teachers are male. This development began during the Civil War of 1861-1865 when all the men were at the front.

CHINA and TURKEY forbid their teachers under threat of dismissal, to use make up, powder or lipstick.

The minister for education Jean Zay has decreed that all school-classes in FRANCE with more than 35 children must be divided. Consequently, although the number of children going to school has diminished, it has been necessary to engage 2,800 new teachers for the elementary schools alone. For the secondary schools 1,085 new teachers have been engaged. In Paris and surroundings alone 300 new classes have been instituted. 278,612 foreign pupils attend French schools at the beginning of the new school year.

SWITZERLAND. Zurich with 251,000 inhabitants possesses 135 kindergartens; the Canton Zurich possesses 173 with 8,500 children.

The CZECHO SLOVAKIAN REPUBLIC with 15,000,000 inhabitants possesses 15,237 Primary Schools with 44,931 classes and 1,780,135 pupils. On an average there are 37 pupils in each class.

AUSTRIA. During the school year 1936-1937 a Viennese College and State School, the Korneuburg Realgymnasium, and the Krems Teachers Training College have been closed. Likewise the so called "Uebungsschulen" attached to the women teachers training colleges in Graz and Linz which were erected to test the students for the teaching profession have been closed.

Of the 6 State Colleges which were established in 1919 from the former Kaiser Cadet schools, 2 have been closed, one to be reconverted into a military high school.

GERMANY. By order of the Reich's minister for education, Dr. Rust, no school beginners may be accepted during the school year 1936-37 in private elementary schools and classes. Every healthy German child of compulsory school age must on principle attend public school. Exceptions only are made for private Jewish elementary schools and classes.

PORTUGAL has at her command so few teachers, that in many places more than 80 children are left under the care of one teacher. In some places there are no teachers at all, so that the children of compulsory school age remain without learning to read and write.

The educational authorities of Ohio in the United States of America have introduced the solving of crossword puzzles in all State schools as a compulsory subject from the third school year. The solving of crossword puzzles is said to promote general knowledge, skill and intelligent thinking.

In all state-aided schools in England traffic education has been introduced as a compulsory subject. The children learn the rules for motor traffic and pedestrians according to the police regulations by practical exercises, partly directed on densely trafficked streets.

A Board school in Manchester has introduced into the top class, a housekeeping and cooking class for boys. The directress reports that practically all the boys very much enjoy attending this class.

SWEDEN. Apart from the permanent village schools of Lapland there are so-called "Wandering Schools" for the children of nomadic tribes. The lessons take place in tents, which change their locality as required. The most important subjects taught are reading, writing and arithmetic, but weather and agricultural science, which are especially necessary for the Laplanders, are also studied.

In the town of Victoria (Australia) a school on wheels has been prepared, which drives into the neighboring country, rests in a conveniently Central Plain, so that the children who lives in the most distant districts are able to go to school.

—From International Pedagogical Information—Paris