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State Manual Training Normal School

THE TECHNE

Life without Labor is a Crime, Labor without Art and the Amenities of Life is Brutality.—Ruskin.

November, 1926

THE CHANGING NATURE OF THINGS

But nothing in the universe is merely a passive state of being. Everything is undergoing change. The universe is a total going concern. It is a total event which is transpiring, and every part and every phase of it is happening or has happened or will happen. The universe is a total event made up of an infinity of included events. In a word, the universe is constantly behaving. This behavior of the universe is infinitely complex and varied. Every individual human being is one tiny bit of this total complex behavior which is going on. The whole history of mankind is one infinitesimal phase of this total behavior.

Now the whole welfare of man depends upon attaining a certain correlation between human behavior and the behavior of the universe, especially in respect to those phases of the universal behavior which bear most critically upon human life.—Henry Nelson Wieman, in The New Republic, September 29, 1926.

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THE TECHNE

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The purposes of this magazine are: To set forth the distinctive work of this College; to publish papers that will be of interest to its readers; to assist teachers to keep in touch with the development in their subjects; to foster a spirit of loyalty that will effect united action among the alumni and former students in promoting the best interests of the institution.

Alumni, teachers and friends of the College are invited to send communications on such subjects as fall within the scope of the magazine.

Sent free to all alumni and students and to teachers, school officials and citizens on request.

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The editors will welcome suggestions from TECHNE readers. Their desire is to make this little magazine helnful to teachers. Tell us how we can make it of greater service to you. Tell us what YOU want.

CONTENTS

PAGE

Education for Health 3
Glenn G. Naudain

Book Reviews 6

The Interstate Scholarship Contest 7

Guiding Principles in Making Courses of Study 8

Campus Jottings 17

EDUCATION FOR HEALTH

Glenn G. Naudain, Ph.D., Professor of Chemistry

Health comes to individuals and races through education. In order to secure the best results there must be a large back-ground of culture. A cultured person is well grounded in the following:

1. He should know great historical facts. In order that we may proceed wisely into the future, it is well we understand the past. By history is meant also histories of economics, education, chemistry, physics geology and so on. It is well that one understands the past—vast ages of time covering hundreds of millions of years— in order to understand the stability of the universe. In human history only the robust men can make history. Others may adorn it, disfigure it, or vulgarize it.

2. The cultured person should be able to appreciate the best in music, art, and literature. This gives us the beautiful side of life.

3. A person is not cultured unless he has the spirit of modern science. Science is the soul of prosperity of nations. What leads us forward is a few scientific discoveries and their applications. Reading, writing, mathematics, and the languages are tools used by the scientist. The collective experience of many men tested and set in order, constitutes science.

Men and animals live by truth. Right action is the final purpose of science, and in like fashion and in the same degree the acquisition of truth is the crowning glory of human endeavor.

Truth is under no obligation to be palatable.

Nature has no pardon for ignorance or illusions. Ignorant action is more dangerous than no action at all.

False doctorines with many followers are based upon such false statements as: There is no pain in truth, therefore there is no truth in pain. There is no matter in life, therefore no life in matter. There is no matter in good, therefore no good in matter. Such fallacies disappear before the searchlight of science. It should be a function of the schools to build up common sense. One of the fallacies that existed up to the past century was that illness was caused either by the hand of God for misbehavior or was the work of the devil. The people did not know about bacteria, as the bacteria could not be seen by the unaided eye. Since disease was not understood, it must be caused by the supernatural. Things not understood are always said to be supernatural. Since disease was considered supernatural, supernatural means were used in treating a sick person. The doctor dressed

in some hideous costume and either tried to coax the devil out of the sick person, or scare the devil out of him, or beat the devil out of him.

The germ theory of disease was not established until about fifty years ago, after the development of the microscope. The chemist and the biologist are working hand in hand in developing stains for the different bacteria. The finer details of the structure of bacteria can not be seen generally without the use of the special stains. The discovery of bacteria and methods for their control has been an immense factor in better health, and the lowering of death rates over the civilized world. Through the control of diseases the endurance, efficiency, happiness, and hope of the human race have been raised to high levels never before dreamed. There is no truth in the statement about the good old days. Sickness and operations were then a terror not known now. There was relatively little knowledge of bacteria in the Civil War days.

A child born today has an expectation of about fifty-five years of life, while a child that has reached its fifth birthday has an expectancy of about sixty-two years. With better control of communicable and other diseases the length of life will be still greatly increased. Great care should be taken in preventing children from having the so-called children's diseases. The idea is false that the children should have them. Every sickness weakens the body and should be avoided if possible. With proper use our present knowledge would rid the world to a large extent of disease. Vaccines, quarantines, disinfectants, antiseptics, etc., if rigidly applied would stamp out most of our diseases. Individuality should be practiced. There is absolutely no excuse in using a community toothbrush, towel, drinking cup, etc. We should never wear each other's clothes. A kiss may transfer social diseases, smallpox, or any other communicable disease.

Diseases are transmitted many times through the food or drink. Milk is a common carrier of diseases. Herds should be tested for tuberculosis, and all cattle found with it destroyed. This is done in some states. People that are sick should not handle milk. Strict cleanliness must be practiced. Milk should be pasteurized. The same care in general should be applied to all food products.

Food is an extremely important factor in health. Our body is constructed from the food we eat. Show the food specialist your diet and he will know what kind of a person you are. Many diseases and abnormalities of the body and mind are caused by deficient diets.

A complete diet for good health consists of the following:

1. A strong or complete protein. A protein consists of some nineteen amino acids. If any of these amino acids are lacking, a per-

son will develop weaknesses and die unless the deficiency is corrected in time. Vegetable proteins are as whole poor. Meat, eggs, and milk are the best sources of complete strong proteins.

2. Mineral matter. The body must be fed idoine, calcium, iron, phosphorus, sodium, potassium, etc., or there is immediate trouble. The lack of any one of these will cause death. Calcium and phosphorus are needed in the bones and teeth. Iron is needed in the blood. Iodine is needed in digestion and to prevent goitres. The lack of iodine will cause cretins or dwarfs. Table salt containing iodine answers the purpose.

Carbohydrates and fats are used in furnishing heat and energy for the body and in the building of fat tissue.

4. The vitamins A, B, C, D, and E are all needed. The lack of any one of them causes sickness and death.

5. A large amount of water should be drunk, in order that the waste products may be washed out of the system, the digested foods carried to the various tissues, and the water content of the body cells kept up to normal.

A person need not worry for fear of a lack of vitamins if a varied diet is used. Such a diet would consist of meat, eggs, fats, green leaves, fruit, vegetables, cereals, and dairy products. Beware of the false advocate who insists on your consuming too great a proportion of food from any one source. The varied diet is still the best dietetic practice and the best solution of the nutritional problem.

Many mental deficiencies are caused by abnormal internal secretions. In some cases this condition can be cured by incorporating into the body some form of these hormone containing secretions. Some cases of mental deficiency are the result of heredity. Our potentialities are determined by our envoirnment and our knowledge of how to use it.

In general, all civilized men are well born. They come of good stock. For the lineage of perversity, insanity, and even stupidity, is never a long one. The perverse, insane, and stupid survive only through the tolerance of others.

Another factor in the health of an individual in both mental and physical welfare is exercise. When a person stops studying and thinking he starts to die mentally. The body also must be exercised. Gymnasiums and nearly every form of outdoor training, including military training, do excellent work in satisfying the physical needs of the body.

We must also be careful to avoid injuries. Education in accident prevention has been proved an effective means of reducing that en-

tirely unnecessary loss of life which occurs every year from preventable accidents.

It is through scientific education that we are able to teach the laws of nature. To live here and now as a man should live constitutes the ethics of science. The ultimate end of science is the regulation of human conduct. Death from the lack of observing health rules is not the punishment for folly, but it is folly's inevitable result.

BOOK REVIEW

PROBLEMS IN BLUEPRINT READING. By Drew W. Castle, vocational director Joliet High School and Junior College, Joliet, Ill. Edited by R. W. Selvidge, professor of industrial education, University of Missouri. Published by the Manual Arts Press, Peoria, Illinois. 1926. Size 7½x11 inches; 87 pages; bound in paper cover. Price $1.44.

The author has solved the problem of teaching blueprint reading without first teaching mechanical drawing. All explanations are simple and clear. The problems are carefully graded in respect to difficulty. These features would make the book quite valuable for home study. It would also serve as a good text in industrial and evening classes. O. A. H.

JOINTS AND HOW THEY ARE MADE, by William Klinke, and published by the Manual Arts Press, has come to our notice. This little book deals with a number of the most common wood-working joints. The illustrations and working drawings are very clear and the book in the hands of the amateur worker should prove quite helpful. We are unable to find anything really new in it. A number of good books which precede have practically all that it contains, and some very much more. A. H. W.

JOB SHEETS FOR THE PRACTICAL ELECTRICAL SHOP. By F. E. Tustison. The Bruce Publishing Company. In this set of job sheets the intelligent teacher should find some valuable help. There are 35 jobs outlined for the seventh and eighth grade boy, giving him some practical knowledge of the mechanics of electricity, as well as a start in the science and theory. The devices and material used are simple, cheap, and available anywhere. The sheets are well illustrated and the arrangement of the information and instruction is good. Radio is not included and many features of electricity are necessarily meagerly treated or omitted altogether, but on the whole this is by far the best set of job sheets on this subject that has come to our notice.

E. W. J.

THE INTERSTATE SCHOLARSHIP CONTEST

More than 200 high school boys and girls, representing a score of schools and three states, took part Saturday, May 1, in the first interstate scholastic contest ever held at Pittsburg State Teachers college. Awards were announced that night at a meeting of contestants and their friends, at which time President W. A. Brandenburg was the chief speaker. Seventeen high schools shared in the honors.

Pittsburg won the school prize, a lecture stand, for the largest number of points, while Frontenac was second and Picher, Okla., third. Other high schools taking at least one first prize were Cherokee, Jasper, Mo., Columbus, Arma, Joplin, Argentine high school of Kansas City, Kan., Central high school of Kansas City, Kan., Mindon, Mo., and Fredonia.

The college plans to make the scholastic tournament an annual event. President Brandenburg predicted a far larger enrollment for next year's contest.

In the following summary, winners are named in order and the figures in parentheses show the number of entries in the events:

English I (12): Alice Comeron, Picher; Edwina Fair, Jasper; Erma Edwards, Independence. English II (13): Jessie Matson, Pittsburg; Laura Smith, Cherryvale; Mary Miller, Cherokee. English III (13): Frances Wells, Jasper; Maxine Boner, Independence; Edith Zellers, Independence.

Mechanical drawing (6): Dio Daily, Columbus; Oma Estis, Picher; Warren Daniels, Picher.

Spanish I (3): Irene Reineri, Pittsburg; Everett Sample, Pittsburg; Genevieve Stovall, Picher. Spanish II (4): Annette Filus, Picher; Alta Johnston, Pittsburg; Eve Prouty, Galena.

Latin I (13): Alice Langlois, Pittsburg; Matilda Comba, Picher; Edwina Fair, Jasper. Latin II (9): Helen Normetty, Jasper; Louise Fink, Pitsburg; Nellie M. Hammonds, Jasper.

Bench woodwork (II): Ralph Reeves, Arma; Garrel Flyod, Arma; Donald Dillman, Independence.

One-act play (2): Cherokee and Joplin in a tie.

Agriculture (5): Dallas Alsup, Frontenac; Ernest Lance, Pittsburg; Ora Simpson, Pittsburg.

Chemistry (II): Warren Campbell, Argentine; Olive May, Hepler; Alma Sites, Carthage, Mo.

General science (12): Arden Cain, Kansas City, Kan., Ed Lavery, Frontenac; Estella Guss, Pittsburg.

Physics (II): Lawrence Curfman, Pittsburg; Richard Alberty, Pittsburg; Arden Cain, Argentine.

Reading (6): Virginia Bailey, Joplin; Catherine Upchurch, Galena; Betty Bradley, Pittsburg.

Extempore speaking (6): Lawrence Curfman, Pittsburg; Tom Elliott, Frontenac; Alfred Lee, Joplin.

Home economics—afternoon costume (4): Lavon Agnette, Minden; Pearl Kindig, Arma; Lucille Wetterlund, Minden, Mo. School costume (10): Effie Ellina, Frontenac; Agnes Sylva, Frontenac; Duddie Labbert, Arma.

Elementary algebra (19): Ed Lavery, Frontenac; Annabelle Walker, Cherokee; Buelah Rhodes, Picher. Advanced algebra (3): Wayne Phelps, Pittsburg; Harold Compton, Pittsburg; Scott Walker, Galena.

Geometry (17): Pete Giddings, Pittsburg; Harriet Devries, Hepler; Charles Bogatie, Frontenac.

Typewriting (14): Helen Gracey, Pittsburg; Thelma Frazier, Columbus; Letha Howell, Fredonia.

Elementary shorthand (6): Letha Howell, Fredonia; Eunice Bell, Cherokee; Floyd Dunlap, Cherokee. Advanced shorthand (6): Elma Knost, Pittsburg; Helen Wells, Pittsburg; Floyd Dunlap, Cherokee.

Winners of first places were awarded a one-year scholarship in the college when they have finished their high school courses. Winners of second places received a gold medal, and of third a silver medal.

GUIDING PRINCIPLES IN MAKING COURSES OF STUDY

(From Bulletin No. 1, State of Missouri Department of Education)

1. SUBJECT MATTER SHOULD HAVE SOME POSITIVE JUSTIFICATION.

Inertia causes a movement to continue until some stronger force stops it or gives it a new direction. In education there are some practices the value of which have disappeared with the conditions that caused them. On the other hand new conditions of modern life have necessitated training of kinds not needed by our forefathers. The principle as stated is not prejudicial to anything in the old curriculum. It merely makes the reasonable demand that every element of courses of study, whether drawn from old practice or from that which is proposed, be considered in light of its relative value to education in Missouri today. Much, perhaps most, of the old courses will be retained and combined with new phases that justify themselves by the same criterion. In other words, nothing is either bad or good merely because it is old or new. A positive justification must be made for any unit of instruction that is proposed. It is the

responsibility of every member of the committee to see that this criterion is applied.

II. SUBJECT MATTER SHOULD BE SELECTED AND ARRANGED IN ACCORD WITH THE FOUR OUTSTANDING CONTRIBUTIONS OF MODERN EDUCATIONAL THEORY. These are recognized as the following:

(A) GENERAL TRANSFER IS NOT AUTOMATIC AND INEVITABLE. The old belief, now wholly discredited, was that the human mind was composed of certain faculties, such as memory, judgment and imagination. It was concluded, therefore, that the function of the school was primarily to train these faculties. Modern scientific research has in the past generation confirmed common-sense observation, that instead of a faculty of memory there are specific memories—for instance, of dates, of horses, of people, or music, or of color—any one of which may be possesed in a high degree by an individual with or without one or more of the others.

Transfer of ability from one field to another is recognized as possible and desirable. It will come, however, only if several conditions are satisfied. First, the knowledge, power, or ability must be possessed in one field. Second, it must have a similarity of application in another. And, third, one must recognize the common element and the possibility of transfer. For example, a student of Latin wishes to know the spelling of a work like dessicate. If he knows the siccus in Latin is spelled with two c's, if he knows that desiccate is derived from desiccare, and if he thinks to apply his knowledge of Latin to his problem, he can make a profitable transfer. If any one of these conditions is lacking, however, transfer is impossible.

As to the transfer of general habits like perseverance, industry, or attention, the evidence is less clear. Every observer recognizes that many people are attentive in one field but not in another, that they are trustworthy in money matters and not keeping appointments, etc. But there is a possibility that transfer of general habits is sometimes made and that it can be improved. There is no evidence, however, that transfer of general habits is more successful from the teaching of one subject than from teaching another. As long as it may result and as long as it is uncertain, it should be sought by all teachers as a valuable by-product to other assured ends. There is reason to think that generalized habits are less possible in children of inferior intellectual gifts than in others.

(B) THERE IS NO GENERAL DESIRABLE "DISCIPLINE" FROM WHAT IS MERELY DIFFICULT OR DISTASTEFUL. This is the old idea of the value of mortification of the flesh that the spirit may be refined. Rejected long ago by the church, it has to a

sad degree persisted in the practice of education. The best evidence that no teacher actually believes it is, that although he may prescribe it for his pupils, he never extends the prescription to himself. However forcefully he may say, "The fact that you see no good in this subject and that you hate it is the very reason you should study it," he never undertakes for his spiritual good the study of some subject that he believes valueless and knows to be distasteful.

As a substitute for the discredited doctrine, which usually results in unintelligent and uneconomic drudgery, modern education would substitute meaningful work. It emphasizes the value of having pupils understand the purposes and the probable worth not merely of subjects but also of small units of subjects in order that they may develop the habit of purposeful work, that they may participate in the important matter of the formulation of methods of attack, and that they may understand the degree of success measured in terms of accomplished purposes. This is very far from so-called "soft pedagogy." Experience has repeatedly shown that when pupils appreciate purposes and share in devising economical methods they are willing to expend a larger amount of ingenuity and effort, which under contrary conditions they often put forth in evading set tasks. Futhermore, they are willing to work industriously on a unit which leads to ends which they are unprepared to understand is assured by a teacher who has won their confidence that later they will recognize its value. It is not less work that modern education demands of pupils, but more work of an intelligent kind. This can be secured only by strong intrinsic motive.

(C) ADAPTION MUST BE MADE TO INDIVIDUAL DIFFERENCES OF ALL KINDS. Nothing has been more convincingly shown by modern education, again confirming common sense observation, than that there are in any group of pupils wide differences of many kinds. The problems in secondary schools due to this fact have been emphasized in recent years by the increased numbers of pupils who desire to continue their education beyond the period of compulsory attendance. Children entering the high school differ in many important ways—in age, in maturity, in size, in intelligence, in knowledge, in habits, in environment, etc. These differences which so condition courses of study and methods of teaching are both innate and acquired; they persist after six to ten years of elementary schooling. Some of them will persist in spite of all that the schools can do.

No school ever yet succeeded in making all of its pupils alike, nor is it desirable that it should do so. There are some differences

among pupils entering a high school that should be decreased or removed. There are others that should be increased by appropriate specialization.

The state needs all sorts of men and women, each one made better able and more desirous of doing effectively the kinds of work that suit aptitudes, capacities, and abilities. Each one, similarly should be led to accomplish with success the highest type of work in which he can find success. No unit of work is too simple for inclusion in a course if it is helpful to some pupils and the highest with which they can succeed. Failure and elimination are almost total loss. They are both prevented if work is provided suitable to individual differences.

The peculiar bearing of this matter to the committee is that recognition of individual differences should be made by providing material which may be selected by a teacher for specific needs resulting from abilities, local conditions, or temporal interests. It may also make it wise to indicate what in each subject is necessary for all and what extensions are desirable for the average and the superior pupils. There are, of course, other applications to curricula and to the guidance of pupils.

(D) SOCIAL EDUCATION IS OF INCREASED IMPORTANCE. The older schools in America concerned themselves almost wholly with academic instruction leaving to home or fortuitous personal contacts the education of youth in social relations. Both changed home conditions in America and serious study of educational ends have shown the wisdom of making this an integral part of the educational program. Something is being done through clubs, special courses, and personal advisers, but much always remain for most, if not all, of the special sujects, both in the selection of socially desired material and of methods of teaching. Courses of study should provide for and encourage both.

III. SUBJECT MATTER SHOULD BE SO SELECTED AND PRESENTED AS TO:

(A) EXPLORE THE INTERESTS, APTITUDES, AND CAPACITIES OF PUPILS BY MEANS OF WORTH-WHILE MATERIAL. As secondary education is the period of initial differentiation, it is necessary that the school know the interests of pupils, their aptitudes for special phases of work, and their capacities for successful achievement in order to guide them aright. Scientifically devised tests will be of some assistance; but while they are materially improved and as our schools are at present organized, it will be necessary to gain desired information by courses that are explanatory or that are as Bruner calls them "finding and broadening." For the

sake of economy, however, the material used for exploration should be worth while by other criteria.

(B) REVEAL TO THEM BY MATERIAL OTHERWISE JUSTIFIABLE THE POSSIBILITIES IN THE HIGHER PHASES OF ACTIVITIES OF MANY KINDS. As electives are offered, it is wise that pupils have some knowledge of the possibilities open to them. Otherwise choice is determined by extrinsic matters and results are less valuable than they should be. It is peculiarly important and economical, therefore, especially in the early work of the high school that courses should reveal something of the content, methods, and values of advanced phases of the several subjects. This is systematically attempted in courses in general science. general mathematics, and general social studies; it can to some extent be accomplished also in other subjects. Revelation is essential if electives are to be chosen wisely. Furthermore, no pupil should be permitted to leave a high school without being informed where and under what conditions he can secure further training of the kind in which he has special interest or ability. Many a man or woman would have continued his education had he known of the possibilities in night schools, continuation schools, etc. In all elementary courses, then, of a subject there should be repeated reference to the value and importance of advanced courses.

(C) TO BE OF MAXIMUM GOOD TO THE EXTENT TO WHICH IT IS PURSUED. Too frequently explanation and revellation have been attempted by means of material of value only if the subject is pursued further. It goes without saying that a year spent on a subject merely to ascertain that a pupil should not take it is a year largely wasted. If, however, the elementary courses in secondary schools are so organized that every unit is good whether advanced work is taken or not, they result in assured values besides exploring and revealing. In some subjects the application of this principle is easier than in others, but in all subjects it can be approximated. Every unit of elementary courses should be tested by the question, "Is this the best material possible for these pupils if they were to leave school next week?"

IV. EDUCATION MUST BE CONSIDERED AN INVESTMENT BY THE STATE TO PRESERVE AND PROMOTE ITS OWN BEST INTERESTS.

This is the only justification of free public education, which demands that corporations as well as individuals without children pay for the maintenance of schools. The acceptance of this principle necessitates that each subject shall contribute dividends on the investment. Each unit, therefore, prescribed for the course of study

should be considered by the criterion, by what it can contribute to make the state a better place to live in and a better place in which to make a living. It is not intended that the emphasis shall be laid solely on economic results; it should consider the broader phases of successful life that contribute to the good of society. This principle may develop an apparent conflict between the rights of the individual and the rights of the state, but the conflict is only apparent rather than real. In the United States we have generally held that the best ends can be attained by developing each pupil according to his his innate capacities and aptitudes. In case of conflict between the interest of the community, which pays the bill, and the interests of an individual pupil, the latter must yield. The increased costs of education and the increasing number of pupils attending high schools make a consistant application of this principle to new courses of study most important.

V. The selection of subject-matter demands for education a directive Golden Rule, which will guide but not restrict. The following is proposed: THE FIRST DUTY OF THE SCHOOL IS TO TEACH PUPILS TO DO BETTER THE DESIRABLE THINGS THAT THEY WILL DO ANYWAY. ANOTHER DUTY IS TO REVEAL HIGHER ACTIVITIES AND MAKE THEM BOTH DESIRED AND TO AN EXTENT POSSIBLE.

The application of this Golden Rule necessitates first of all an inventory of the activities in any field that are considered desirable. This demands the most careful work of the subject matter committee with a minimum degree of book tradition.

It will be well to select several men and women considered the best citizens and analyze their activities to ascertain in what ways the teaching of the special subject with which the committee is concerned could contribute to make pupils able later to perform such activities better. Of course no one can prophesy accurately what any pupil will do, but the safest prophecy is what similar men and women are doing.

If only the first part of this Golden Rule is followed, it will not insure the advancement that education should give. Unquestionably a course should reveal higher activities in the field of the special subject; not only that, but it should make these higher acvities both desired to an extent possible. One of the most serious criticisms of our present educational procedure is that pupils complete courses in Latin or Science or History with no inclination to pursue the subject further. The school has very measurable re-

vealed higher activities, but it needs far more than it has ever before done to make them desired and actively successful.

(A) IN APPLYING THESE PRINCIPLES IT IS HELPFUL TO CONSIDER THE SEVEN OBJECTIVES PROPOSED IN THE CARDINAL PRINCIPLES OF SECONDARY EDUCATION (Bulletin 35, U. S. Bureau of Education 1918). These are: health, command of fundamental processes of the subject, vocational effectiveness, a knowledge and sense of obligation regarding civic responsibilities, complete home membership, a wise use of leisure time, and ethical character. More of these objectives can be achieved in each subject than are generally sought. Each unit prepared for a course should be tested for its possible contribution to all seven of the objectives.

(B) IT IS HELPFUL ALSO TO CONSIDER WHAT THE SCHOOL SHOULD TEACH IF THERE WERE NO RESTRICTIONS OF TRADITION, EXTERNAL REQUIREMENTS, EQUIPMENT, OR TEACHERS. If this ideal is clearly seen, compromise may be made where necessitated, but improved courses will result. We should be able to achieve many more of our ideals if we formulated them clearly, believe in them, and seriously seek their attainment even by the conventional subjects.

(C) IT IS HELD THAT MOST ADVANCEMENT CAN AT PRESENT BE MADE WITHOUT DESTROYING THE USUAL SUBJECT DEPARTMENTS (e. g. ENGLISH, MATHEMATICS, ETC.) IN SECONDARY SCHOOLS. There should result, however increased coordination and cooperation. The attempt of a generation ago to secure correlation among departments failed not because the principle was unsound, but because teachers were unable to cooperate to the necessary extent. Today, however, in making new courses it is not only possible but also highly desirable to introduce many phases of closely related subjects, and it is hoped the committeees will attempt this.

VI. EACH COURSE SHOULD BE SO MADE THAT ANY NORMALLY INTELLIGENT AND INDUSTRIOUS PUPIL CAN PASS.

The justification of this principle is found in the theses concerning individual differences and in a conviction that repeated failure, even after serious effort, not only contributes small dividends on the investment of the state, but also inhibits further good work and sets up a conviction of failure as an expectancy that handicaps a pupil in whatever he may undertake.

It is suprising to find how many subjects are already so organized and taught on an individual basis that pupils pass it if they give their best effort. Such subjects are English Literature, English

Composition, Physical Education, Art, Music, etc. This principle does not presuppose a lowering of standards; it rather emphasizes a one hundred per cent success regularly achieved regardless of the amount of time required.

Provision may be made in large schools for homogeneous groups of pupils moving at different rates of speed—always with success in proportion to effect. For smaller schools, however, the syllabus must supply more material as suggested later for all pupils, to be supplemented by additional units for pupils of average and superior abilities.

VII. COURSES OF STUDY SHOULD HAVE TWO OTHER CHARACTERISTICS.

(A) THEY SHOULD BE SO DEVISED AS TO SECURE DESIRABLE INTEGRATION OF PUPILS (BY COMMON INFORMATION, IDEALS, ATTITUTES, AND PREJUDICES) IN A DEMOCRACY. Lacking an authoritative list, it is a challenge to each committee to agree upon such ideals, attitudes, and prejudices that a subject can contribute so that men will think alike and feel alike in our republic. The possibilities in this field are of obvious importance to the social studies and English Literature. They are also important, even if less obvious, in other subjects as well.

(B) THEY SHOULD PROVIDE FOR AN INCREASING AMOUNT OF DIFFERENTIATION AND SPECIALIZATION, ACCORDING TO THE NEEDS OF INDIVIDUAL PUPILS, CITIES. AND EVEN SCHOOLS. It is obvious, for example, that Biology needs different applications for children living in congested, urban districts from that for those in the country. Similarly, children with different abilities and background need differentiated courses in English, History, and the like.

VIII. COURSES OF STUDY AS WELL AS CURRICULA SHOULD BE THE RESULT OF CONTINUOUS COOPERATIVE EFFORT OF TEACHERS AND ADMINISTRATIVE OFFICERS.

As large a number of teachers as possible should be involved in the construction of those courses of study for Missouri, partly for the contribution that they will make and partly for the increased interest and receptive attitude that will result. The best administrative powers of the chairman of each committee are challenged to devise means to get cooperation from individuals, teachers, and groups of teachers.

IX. COURSES OF STUDY SHOULD ALWAYS BE CONSIDERED TENTATIVE AND SHOULD BE MODIFIED WHENEVER

GOOD REASONS APPEAR. PROPOSED MODIFICATIONS SHOULD BE SOUNDLY BASED ON SUCH THESES AS THOSE PRESENTED IN THIS SYLLABUS.

SUGGESTED FORM OF SYLLABUS

1. AIMS. At the beginning of each syllabus there should be a statement of the general aims to be sought by the subject, and at appropriate places later specific aims for units of work. All aims should be sound educationally, simply stated, and of a nature that will as definitely as possible direct the selection of material and the methods of teaching. It will be better to have a small number of aims of this kind than a larger number that may prove confusing rather than helpful.

2. APPLICATION OF THE THESES. There should be a careful and persistant attempt to apply the theses presented in the foregoing pages and other similar theses adopted by the committee. Repeated reference should be made in the syllabus to them so that teachers will become conscious of the principles underlying the syllabus, and principles which should similarly be directive of their interpretation and application of it.

3. METHODS. It is desirable that good methods be continuously suggested. In fact, it is difficult to see how methods can be divorced from the effective presentation of subject matter. From time to time concrete ilustrations of lesson plans, projects, or applications should be included. These are suggested not to restrict the inventive, able teacher, but to guide the many who need help. Here is the place for suggestions of economy in preparation, teaching, the handling of materials, and the correction of papers.

4. CORE MATERIAL. There will doubtless be a body of material that the committee considers essential for all pupils in all schools. This should be presented separately and elaborated with the greatest care. The weaker teachers will doubtless attempt little more than this, especially with pupils of the lower ranges of ability. Consequently every item should be of the maximum value.

5. OPTIONAL MATERIAL. For supplementing the core material there should be presented optional units which teachers may select to suit local or temporary needs and to challenge the powers of the pupils of more ability. Of course, the material of these units should also be educationally sound, but it is presented as phases of differentiation rather than of integration.

6. SUPPLEMENTARY MATERIAL. Each syllabus should include lists of reference books, equipment, and illustrative material (a) essential and (b) desirable for a better presentation of the course. For the use of such material, carefully prepared instructions should

be given, not only following the list but also at appropriate places in the syllabus. Unless repeated references are made throughout the syllabus to the supplementary material, it is likely to used far less effectively than it should be. Under this heading should also be given suggestions for the wise use of supplementary textbooks.

7. STANDARDS OF ATTAINMENT. Wherever possible, reasonable standards of attainment for the several units of the syllabus should be included. In some cases there are available scientifically devised tests with standards for each year; but more often committee must set up standards on the basis of its best judgment. Here may be suggested the economy of the "new type" examinations —true-false, completion, selective response, and the like.

8. BIBLIOGRAPHY. At the end of each course of study should be given a bibliography of helpful books on methods of teaching and on subject matter. This should be annotated and the most desirable books starred. It is held by the committee that it will be unwise to include in this bibliography textbooks such as are ordinarily used for class instruction. At appropriate places in the courses of study specific page references should be given to the books listed in the bibliography.

CAMPUS JOTTINGS

The Kampus Kats, the girls' rooting club, initiated about 150 coeds on Oct. 26. The rites were intended to emphasize the girls' duty of loyalty and enthusiasm for their college. The Gorillas, the men's club entertained the Kats and their new members with a picnic the next afternoon.

More than one hundred freshman girls at Pittsburg State Teachers college are wearing freshman caps and the dealers have had to place orders for more. The style is the visorless gridiron cap in the college colors, the crimson body being quartered and bordered by gold bands. A "K" adds a touch of distinction. The freshman girls called for caps of their own when the upperclassmen commanded the freshman boys to wear class caps. Now the senior girls are asking why they have never had the chance to wear a college cap.

A number of instructors and students are making plans to see "The Miracle," the spectacular theatrical pantomime, at Kansas City in December. Prof. Walter McCray, head of the department of music, is organizing a party for the trip and is being assisted by the departments of speech and of English . Arrangements are being made for a special train. The English club recently devoted a program to the play.

Cross-country runners representing Pittsburg State Teachers College won on October 23 over Southwestern the first intercollegiate

competition of the sort that the college had ever taken part in, the score being 20 to 35. The race over approximately a five-mile course took place during the football game here between the Gorillas and Wichita Municipal University. James Waner of Florence led the winning Gorillas.

Special short courses in housewifery for Pittsburg women are being taught of afternoons at the College under the general supervision of Miss Agnes Saunders, joint head of the home economics department. The subjects include the selection and care of fabrics, the selection and buying of clothing, patterns and fitting, the use of a dress form, color in home decorations, the selection and arranging of furnishings, the planning and serving of meals, etc. All courses are five weeks in length, with the class meeting once or twice a week.

Pre-season basketball practice is in full swing at Pittsburg State Teachers College. Forty candidates meet every Tuesday and Thursday afternoons for drill in essentials, under the tutoring of Deming Shaw, captain. Kay Goforth, of Winfield, high point man in the Arkansas Valley league last year, is one of the aspirants. Other candidates will appear on the court at the close of the bootball season.

A women's glee club of twenty-eight members is rehearsing at Pittsburg State Teachers College, under the baton of Miss Gabriella Campbell of the music department. Because of the unusual number of good voices available, this is the largest glee club that has ever been trained here. The co-eds composing the club represent four states and seventeen towns. They will be ready for concerts, both in Pittsburg and elsewhere, by mid-year.

An orchestra of thirty-three instruments and probably the best ever recruited at Pittsburg State Teachers College, is the chief music attraction at the College assembuly every Thursday morning. Under the direction of Prof. Walter McCray, it plays choice selections from operas and other classical and semi-popular pieces that are usually heard from orchestras long in training. The membership represents three states and twenty towns. A number of the players had their earlier training in high school orchestras that are well known in this district.

Three college girls as cheer leaders were seen in action at the football game between Pittsburg State Tachers College and Wichita Municipal university here Oct. 23. The three—Miss Ruth Durbin of Ottawa, and Miss Marcetis Ware and Miss Nadeane Cracraft of Pittsburg—were the first co-eds ever to act as yell directors at the college and are doubtless among the first in the state. Clad in costumes of pleated white wool skirts and white sweaters, black ties and crimson and gold sashes, the three girls lent picturesqueness to the

scene as, stationed in front of the stadium with three men cheer leaders, they swayed gracefully to the rhythm of the college yells.

Seven students at Pittsburg State Teachers College have been elected to active membership in Sigma Tau Delta, honorary literary fraternity, and three others have been made associate members. The new active members are Miss Nell Callahan, Osawatomie; Mrs. Forrest Bryan, Scott City; Miss Elsie Rickey, Mulberry; Miss Bessie Hansford, Miss Esther Wilson, Miss Elsie Mitchell, and Howard Donnelly, Pittsburg. The three associate members are Miss Pauline Potter, La Cygne; Mrs. George Small, Florence; and Miss Santa Maria Craig, Pittsburg.

More than 200 singers have already been enrolled in the spring festival chorus. This is the largest number ever registered for the early fall rehearsals. The chorus will this year prepare Verdi's "Requiem" as the new choral number on the festival program, besides rehearsing Handel's "The Messiah," which is always sung the last night of the festival. Both students and Pittsburgers make up the chorus. Prof. Walter McCray conducts a rehearsal each Monday night.

John Reinecke, youthful poet and an alumnus of the College, is working his way around the world in order to gather literary materials. He is now in Hawaii, having earned passage money by washing dishes in a California inn. Reinecke has had three poems accepted for Braithwaite's 1926 anthology of the best current poetry.

Opportunities for ambitious young people are far more numerous in the Middle West than in the big cities of the East, Senator Arthur Capper told the students in an address at assembly recently. A young man needs neither money nor "pull" to get a start in Kansas, he said, implying the contrary for the East.

Prof. Walter McCray has organized a men's glee club of twenty members. The club rehearses at noon four days a week in preparation for a series of concerts in the winter and spring.

An all-college picnic was held in Lincoln Park the evening of Oct. 20. After a big supper served cafeteria style, games and humorous contests filled the evening until time to go to the picture theatres, where the students were guests at the second shows.

The seven sororities pledged seventy-nine women as the result of "rush week," in reality only two days, Oct. 8 and 9. Freshman girls, who were in the majority among the "rushees," were pledged shortly after accepting invitations to join, but have to wait until next semester to enjoy full sorority privileges. Others will be initiated this fall.

Fred S. Henderson of Neodesha is president of the Industrial Arts Society this fall. J. Russell Crocker of Wichita is vice-president,

and Prof. R. E. Williams is secretary-treasurer. The society has fifty-five members.

Prof. Edgar Mendenhall of the rural education department is writing a paper on "Some Rural Community Problems" for the biennial report of the Kansas state board of agriculture at the request of the secretary.

The Arden Players, student dramatic club, will present a modern romanic comedy, "The Road to Yesterday," on Nov. 18. There are fifteen actors in the cast.

All-college parties are given every other Friday night this year unless other events crowd them off the calendar. A big Hallowe'en masked party at the gymnasium held the boards October 29.