2-1-1929

The Techne, Vol. 12, No. 3: State Manual Training Normal

State Manual Training Normal School

THE TECHNE

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

Vol. XII No. 3

JANUARY-FEBRUARY, 1929

THE AMERICAN FLAG

When Freedom from her mountain height
Unfurled her standard to the air,
She tore the azure robe of night,
And set the stars of glory there.
She mingled with its gorgeous dyes
The milky baldric of the skies,
And striped its pure celestial white,
With streakings of the morning light;
Then from his mansion in the sun
She called her eagle bearer down,
And gave into his mighty hand,
The symbol of her chosen land.

—JOSEPH RODMAN DRAKE, 1819.

PUBLISHED BY
KANSAS STATE TEACHERS COLLEGE
OF PITTSBURG, KANSAS.

THE TECHNE

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

Vol. XII. JANUARY-FEBRUARY, 1929 No. 3

The Techne is a magazine and research bulletin issued bi-monthly by the College except in July and August. The articles are for the most part in the field of education, some of them dealing with experiments and projects, others discussing and interpreting current problems and developments. Though much of the material is contributed by the faculty, contributions that fall within the scope of the magazine are welcome from alumni, teachers, and administrators.

The Techne is sent free to the alumni, to institutions of higher learning, public libraries, and to school administrators of this district, as well as to any other person or institution on request.

TABLE OF CONTENTS

The Case For Vocational Education

By C. M. Miller, Director Kansas State Board for Vocational Education

There is nothing more evident nor certain than change. Change is being constantly wrought about us. Today is different from yesterday. Tomorrow will be different from today. Vegetation changes. Men change. Inanimate matter changes as the forces of nature perform their magic upon it.

As certainly as these changes occur so also do commercial, economic, industrial and social changes occur. Where once it took months to transmit a message from New York to San Francisco, now the same distance is covered in only a few hours. Where once it took months to transmit a message from New York toSan Francisco, now the same distance is only a matter of seconds. When Washington was nominated for presidency, he was only a few miles distant but it was weeks before he learned of his nomination. In June of last year two great political conventions were held; one in Kansas City and one in Houston. In each case a candidate for the presidency of the United States was nominated and in a few seconds, or minutes at the most, every citizen in the United States who was at all interested in knowing of it, was informed of the nomination. Even the people of the other side of the globe knew of the nomination in a very few minutes after it occurred. A political speech today is heard by millions instead of by the few hundred who can crowd into a hall.

These changes in transportation and communication effect economic, industrial and social changes; and as these changes are accomplished the educational needs of society change. It is with the educational needs of society that this article shall concern itself.

The days of the ox cart and the pony express in transportation and communication have passed. Likewise the day of ox-cart and pony-express content and method in education have passed. Education must keep pace with progress or at least only a few paces behind progress in other social activities. In fact, it is to be desired that education should keep a few paces ahead of progress in other fields and anticipate some of the changes which may be expected and prepare for their coming. Many changes of course have been wrought in education but society is quite slow to accept changes in an institution so deeply traditionalized as its program of public education, and so it is sometimes difficult for educators to keep their constituency abreast of progress in education. Indeed, there are standpatters in the field of education as in every other field of endeavor, who do not themselves keep abreast of educational progress. It is true of course that sometimes the standpatters perform the function of safety valves but there are times when they throttle and retard progress.

Among the important changes which have been wrought in education in this country in recent years is the Vocational Education movement. It had its beginning in the late eighties but had a slow development until the second decade of the twentieth century. The

movement received its greatest impetus with the enactment of the Federal Law popularly known as the Smith-Hughes Vocational Education Act. This Act provides federal funds for the use of the states in the promotion of Vocational Education in Agriculture, Trade and Industrial Education, and Vocational Home Making Education and also for the purpose of training teachers for these various fields of educational activity. The federal fund provided by this Act is contingent upon the states making similar appropriations for this purpose and providing supervision of the work by and within the state.

Various attempts have been made to define the term "Education." Educators even today are not in entire agreement as to the exact meaning of the term. In politics we say a man is a Republican, Democrat, or Socialist, etc. In religion we say he is Methodist, Presbyterian, Catholic, Baptist or what not. Even these are variable terms but we understand fairly well what we mean when we say that a man is of a particular political or religious faith.

When we say that a man is educated, our evaluation of him is much less accurate. For even though public education in this country is as old as the country, we are still debating the meaning of the word. We are not certain just what we mean when we refer to an individual as "educated."

All true educators have been deeply concerned about the matter of defining education not so much, of course, for just the sake of a definition but for the sake of fixing an objective toward which to guide the public schools of this country. Just as all educators have been concerned with defining the purpose of education, vocational educators have been concerned with defining the purpose and objective of Vocational Education. Since the inauguration of a national program of Vocational Education and the consequent advent of hundreds of workers into the field of vocational education, many attempts at defining the term have been made.

A definition of education from the pen of a successful and practically minded business man who is a consumer of large amounts of the products of our schools should arrest the attention and command the respect of any educator. We believe that Mr. Henry Ford had Vocational Education in mind when he gave the following definition of education: "Education is good only when it furnishes the kind of knowledge which puts a man in full control of his faculties for living a sane, industrious and useful life. It is not good when it merely fills a man's head with a quantity of ornamental but useless information."

Perhaps no two men of this country have made greater contributions in the field of vocational education than Dr. C. A. Prosser, Director, William Hood Dunwoody Industrial Institute, Minneapolis; and Dr. Charles R. Allen, Specialist for the Federal Board for Vocational Education. In their book, "Vocational Education in a Democracy," they define vocational education as follows: "Vocational Education becomes that part of the experience of any individual whereby he learns successfully to carry on any gainful occupation."

Dr. Theodore Eaton, Professor of Rural Education at Cornell University, defines vocational education in these words: "So far as efficiency and happiness in vocations are concerned, that part of the educative process which directs the activities and controls the environment of the learner to the end that he may acquire the mental attribute and ability which makes him an efficient and happy economic producer is more economical than education for other ends which may yield only by-products of value in vocations. . . . We call this part of education 'Vocational Education'."

Dr. David Snedden of Columbia University says: "Vocational cation is any form of education whether given in a school or elsewhere, the purpose of which is to fit an individual to pursue effectively a recognized, profitable employment, whether it pursues for wages or otherwise."

The Federal Board for Vocational Education has defined the term as follows: "Vocational Education as contemplated in the National Vocational Education Act may be any sort of education and training of less than college grade which will fit boys, girls, women and men for the effective pursuit of occupation that they may look forward to following or, if already employed, will help them to do better work on their job or to secure training which will asssist them to secure better jobs."

Since any program of vocational education inaugurated and carried forward in cooperation with the Federal Board for Vocational Education must be of less than college grade and since any program of vocational education must contact very intimately with industry, we like the following definition: "Vocational Education is any form of education of less than college grade, whether given in a school or cooperatively with industry, the purpose of which is to fit an individual to pursue effectively and happily a recognized profitable employment."

We emphasize the word happily in this definition, for we believe that in order to be effective and efficient, one must be happy in the work he attempts to do. No individual is ever at his best except when pursuing some employment in which he enjoys maximum happiness and satisfaction.

Kansas lays claim to the distinction of "growing the best wheat in the world." This means that Kansas is located in a tremendously rich agricultural section and that agriculture is perhaps the chief industry. This being true one would naturally expect to find in any adequate program of vocational education for this section ample provision for the teaching of Vocational Agriculture. Your guess is right. The teaching of Vocational Agriculture does occupy a prominent place in the vocational education program of this section of the country.

Vocational educators do not believe that every boy who is born and reared on the farm should be forced or unduly urged to remain there, but they believe that every farm reared boy who elects to remain on the farm should have access to the very best training that can be provided for him.

VOCATIONAL AGRICULTURE

In 1918 only a few schools were organized and a few hundred boys were reached. In 1928 Vocational Agriculture courses were offered in 100 high schools of the state with more than two thousand farm boys enrolled in these courses.

Everyone accepts the fact that agriculture is a fundamental industry. Also everyone accepts the fact that the past few years have been difficult ones for the farmers. Many theories for the relief of the farmer have been advanced. Doubtless all of them have merit We submit for your consideration that nothing can be of greater benefit to the coming generation of farmers than for them to be taught to apply economic, scientific and business methods to the biggest business the world knows anything about—that of producing and marketing farm products.

The farmer of today and of tomorrow must be a business man for he has a capital investment quite equal to that of his brother who operates a business in the city. In addition to being a business man, he must know soils, seeds, disease and insect control, animals, and laws governing the operation of markets. He must know how to buy, operate and maintain machinery. In fact the farmer's job requires a brand of intelligence which is altogether equal if not superior to that of the business or professional man who achieves equal success for the range of his activity covers a wider spread than that of the average business or professional man. The time when just anyone could make a success of farming passed with the ox cart and the pony express and only the fittest may hope to survive.

Granting that so much intelligence and so many skills are necessary to succeed in the business of farming, we submit that considerable training is necessary to success. Of course Dad can give the boy a great deal of this training and a lot of it must be acquired on the job, but is is just as true that a great deal of it can be acquired before entering upon the job, or by the combination of school and actual practice.

Every boy who enrolls in a course in Vocational Agriculture carries under the supervision of the teacher of Vocational Agriculture and in cooperation with his parents, a productive farm project. Thus the home farm becomes the school's laboratory and the farmers are becoming very closely associated with the schools they support.

By thus combining the school with the actual job, is is possible to shorten the period of apprenticeship for the young men who would enter the business of farming. We mean by this that a young man carrying the course in Vocational Agriculture through two, three or four years of high school and going directly from high school to the business of farming, takes with him not only the experience of his parents, but also the results of various costly experiments carried on in the State Agricultural College. He takes not only the knowledge of the experiments but ability to apply them to the actual business of farming.

In carrying a productive class project, a boy is required to study every phase of production and marketing. For instance, if it be an

animal production project, he must study selection of the animal, selection and preparation of the feeds used, and finally, markets, for as an actual farmer it will be necessary for him to meet all these situations and he learns by doing.

While productive projects are carried chiefly for their educational value, it is not unusual for a boy in his two, three or four years of high school Vocational Agriculture to accumulate enough livestock and equipment to start him modestly in the business of farming for himself, thus shortening by several years his apprenticeship or experimental period. If through Vocational Agriculture courses it is possible to shorten the apprenticeship and experimentation period of young farmers thereby saving to themselves and society several years of productive life, the Vocational Agriculture program will pay for itself several times with each year's crop of Vocational Agriculture students graduating from our high schools.

TRADE AND INDUSTRIAL EDUCATION

Vocational educators believe that the boy who wishes to become a locomotive engineer, for instance, is just as much entitled to his training at public expense as is the boy who decides he is going to enter a profession—that of medicine for instance—for does not society have need for the services of both? Having equal need for the servics of both, society has equal obligations for the training of both and furthermore society will pay for the training of both. We may have our choice of providing this training in an organized, efficient, less expensive way, or in a wasteful, pick-up, expensive catch-as-catch-can way.

Now, if you do not agree that the boy who desires to enter a mechanical trade—that of locomotive engineer for instance—is as much entitled to his training at public expense as the boy who wishes to enter a profession—that of medicine for instance—let us consider the matter together. Take the case of two boys, brothers, born of the same parents, reared under the same roof. They attend the same school through high school. At the close of the high school course one boy has decided that he is going to study medicine. What do we say to him? We have provided for him at the state university. We give him his complete course and issue him a diploma which entitles him to hang up his sign and announce to the world that he is ready to begin earning his livelihood.

But what do we do for the fellow who has decided to become a locomotive engineer? We don't do anything except tell him that we will have need of a lot of good locomotive engineers for without them our great railroads could not operate. We wish him good luck and hope he has the nerve and courage to find a way to learn his trade.

Now please do not misunderstand. Vocational educators do not recommended taking a railroad into the schoolroom in order to teach locomotive engineering, but they do recommend a cooperative arrangement between school and industry to the end that workers in any trade may have opportunity to get the training they need.

The rapid changes being accomplished in modern industry have made it necessary that changes be accomplished in the method of train-

ing workers. For the past two years the writer has been a member of a committee of the National Association of State Directors of Vocational Education appointed for the purpose of working out principles and policies for advancing vocational education in the United States. A few paragraphs are quoted from the report of that committee: "In the past thirty-five years all American productive enterprises have found themselves confronted with new economic and social situations brought about by steadily decreasing natural resources, steadily increasing wages, largely increased human wants, steadily progressive specializations, changed and restricted immigration, a shift from emphasis on manipulative skills to emphasis on technical knowledge and a shortening of the working day.

"The essential factors involved in wealth production are: first, the existence of natural resources; second, skill; third, labor; fourth, time spent in work; and fifth, intelligence as offered to inventions and other problems which tend to reduce production costs. In these five factors only two afford an off-set to the decrease in natural resources and decrease in time; that is increased skill and increased intelligence. This has been the universal experience of every country which has been faced with similar conditions with which this country is faced at this time. Since the job of Vocational Education is to promote in the most efficient way the development of skill and ingenuity a program of vocational education is absolutely necessary in this country if it is to maintain its present position with regard to the production of wealth and hold its own in the world competition.

"In early times young workers acquired the skills and knowledge of a given vocation by watching, imitating and copying fathers, mothers and other elders; that is they were trained by methods of fellowship. This method later gave way in some vocations to the apprenticeship method which later gave way to vocational schools. The vocational schools usually supplemented apprenticeship at first, but usually took over training in both skills and technical knowledge."

Everyone who is at all familiar with the situation agrees that with the exception of a very few trades the apprenticeship system has almost completely disappeared from American industry. In the few exceptions, much effort is being made to keep it alive.

The boy who was asked to write an essay on progress turned in the following as a result of his effort: "Things aint what they used to have been and folks dont do things like they used to did them." Therein lies a part of the cause of the breakdown of the apprenticeship system. Folks have shifted from doing "things like they used to did them" so fast that the cumbersome institution of apprenticeship could not keep pace, and we turn for relief to the more effective and more adaptable Vocational school.

We might dwell at length upon the disappearance of the apprenticeship system of training in industry. Time will not permit. Suffice it to say that it has gone and there is no indication that it will ever return, for the world moves forward and not back. The vocational school has taken its place and will continue to do so to an increasing degree.

By way of emphasis we repeat from the creed of the vocational educator the principle that a democratic society has an obligation to provide training for workers in every field of useful endeavor. To illustrate: When I get on the train to make a trip across Kansas, I shall retire in full confidence that the crew on my train will pull into my destination the next morning and that I shall have had a good night's rest and be refreshed for tomorrow's tasks. That confidence is inspired by the fact that the men who built the equipment of the train did their work well, the men who keep it in repair do their work well and the men who operate it do their work well. Why? Because they have the training to do it. In other words, I put my life in the hands of those men with the same confidence that I call a physician to my bedside in case of illness.

VOCATIONAL HOME MAKING

It is a truism to say that the home is the cornerstone in the foundation of civilization. History teaches us that every nation which has suffered disappearance of sane and sensible home life has subsequently suffered decay of its civilization. Modern civilization makes such heavy demands on mother's time that she needs help in training the girls in the many things they need to know about home making. Scientific discovery and modern inventions have so greatly increased the body of scientific and technical knowledge valuable to a home maker that it is almost impossible to keep "modern" except through organized effort such as the opportunity offered in Vocational Home Making schools and classes.

More people are interested in Home Making than in any other business for everyone is interested in some sort of a home. It may be an ash can, a dormitory room, an apartment or a palace. Whatsoever it is, it is home. The more home-loving a people, the finer the fiber of that civilization.

It makes a lot of difference to the bread winner of a family whether the business agent is able to spend the family income so as to make it bring a maximum of comfort and satisfaction. If, for instance, mother is able to take a given amount and buy material and make it into clothing so as to make herself and family attractive, it brings so much more of satisfaction than if she does not have the ability and skill. If she is able on a given food allowance to provide food which is attractive, nourishing and healthful, her family is far more happy and her home much more attractive than the home of the mother who does not have this ability.

In these days when modern tendencies are gouging away at the foundations of society—the home—society will do well to take heed and make ample provision for the teaching of Home Making in day school for girls, and in evening classes for adult women. Such is the program of Vocational Education in Home Making.

The 200-Inch Telescope

By. R. W. Hart, Professor of Mathematics

The most interesting event of the past year among astronomers was the announcement that the International Education Board, which handles the Rockefeller benefactions, had made an appropriation for the construction of a 200-inch telescope and an astrophysical laboratory for the California Institute of Technology. To the uninitiated this news probably does not mean a lot; but when we stop to consider that the largest telescope now in existence is the Mount Wilson telescope, whose diameter is 100 inches, we realize that this new instrument is something extraordinary. As two hundred inches are almost equal to seventeen feet, the area of the mirror that will be constructed for the telescope will be four times that of the largest telescope now in existence. There would be room enough within the barrel of this new instrument to park several good-sized automobiles.

Problems of many different types must be solved before the instrument will be ready for use, and the best authorities in several fields intend to co-operate in the construction of this gigantic eye. The location of the observatory is of the utmost importance, so that good climatic and atmospheric conditions may be assured. The southwestern part of the United States offers as near as we can obtain to an ideal place for astronomical work in this country, and since it is an advantage to get above the lower levels of the atmosphere when doing fine work with a telescope, a mountain as the site of the observatory will be selected somewhere within a night's journey from Pasadena. Just what mountain will be chosen will be determined by tests of atmospheric conditions over at least a year's time.

The mirror will weigh between twenty-five and thirty tons and must be true to one-500,000 of an inch. Heretofore telescopic mirrors have been made of glass coated with silver, but since glass changes its size with changes of temperature and is a poor conductor of heat, a glass mirror seventeen feet in diameter would expand or contract unevenly, so that an image would be distorted. For that reason it is proposed to make this new mirror of fused quartz, which expands only about one-fifteenth as much as glass when heated through the same range of temperature. The General Electric Company is now experimenting with quartz disks to solve the problems of making such a large mirror. It is probable that the 200-inch mirror will be made up of a comparatively rough base of fused quartz coated with a much finer grade of the same material. This coating will then be worked into correct shape.

What advantages will this new telescope have over the smaller ones that we now use? While we cannot predict the discoveries that may be made, still we do know to some extent about what to expect in certain fields of astronomy.

Astronomers divide the stars into magnitudes, the brightest being of the first and the faintest that can be seen with the naked eye of the

sixth magnitude. A star of any one magnitude is about two and one-half times as bright as one in the next fainter magnitude. The 100-inch Hooker telescope on Mount Wilson photographs twenty-two magnitudes of stars, whereas this 200-inch telescope is expected to photograph about twenty-five magnitudes. A star of the twenty-second magnitude is over fifteen times as bright as one of the twenty-fifth. The power of this instrument may be appreciated when we learn that a star of the twenty-fifth magnitude gives about as much light to the earth as a candle would if placed at a distance of 41,000 miles. This increased magnification means that we should be able to photograph several hundred million more stars than we do now. The Hooker telescope has a range of about one and one-half billion stars.

While it is not expected that the 200-inch telescope will reveal any types of heavenly bodies not seen now, it is believed that our knowlege of certain things will be increased. This is especially true of nebulae. In a small telescope a nebula appears as a bright hazy mass resembling a white cloud. More than a million of these have been photographed with our present instruments. It is believed by some astronomers that some of these nebulae are immense systems of stars at great distances from us. About five or six of the so-called spiral nebulae have been shown to consist of at least in part of individual stars. This field of investigation will undoubtedly be greatly aided by a larger telescope.

The Milky Way, which to the naked eye appears to be a misty cloudlike band stretching completely around the sky, is made up of a large number of stars, as an ordinary pair of opera glasses will reveal. These stars greatly resemble our sun and are at distances so great that it takes the light from them several years and in some cases thousands of years to come to us. Our sun is one small unit in this great system which astronomers call the Galactic System. The sun with its planets and other smaller masses forms what we call the Solar System. Now if you wish to give your address so that some one in another universe could find you conveniently, name your house number, street, city, county, state, then add United States, America, earth, Solar System, and Galactic System. This is as far as astronomers have taken us to date. Those faint nebulae that we are just able to see with our telescopes may be systems of stars comparable to our Galactic System. Is it too much to believe that these systems in turn form what Moulton has called superuniverses? Just how far this new telescope will take us in this field we cannot even guess.

The distances of these nebulae are almost inconceivable. To measure them in miles would require too many digits, so they are expressed in light years, the distance that light travels in a year. A little multiplication will show what this is in miles, since light travels at the rate of 186,000 miles per second. The nearest star is about four light years away, while the nebula in the constellation of Andromeda, one of the nearest, is 870,000 light years away. Dr. Walter S. Adams of the Mount Wilson observatory predicts that the new 200-inch telescope will show nebulae of average size out to a distance of 400,000,000 light years.

This new instrument will also aid in measuring the heat given off by the stars. Physicists can now measure temperatures to a millionth of a degree and hence can measure the heat received from a human face at a distance of 2,000 feet. With the aid of a large telescope the heat from a candle 100 miles away can be measured. The heat received from nearly 150 stars has already been measured and undoubtedly the temperatures of many more will be taken with the new telescope. This telescope will also aid in measuring surface temperatures of our neighbors, the planets; or, as Dr. Russell puts it, the 200-inch telescope should provide us with a weather map of Mars.

These are some of the expected results that may be obtained from the greatest of all telescopes. There may be others that we have not yet thought of. When the Hooker telescope was built, no one expected that it would be used to measure the diameter of a star, but Pease and Anderson did it with the added help of the interferometer. And so with this new telescope. We laymen sit on the sidelines and await with interest the results of the work of those who stand on the frontiers of astronomy.

Supervised Study In Kansas High Schools

By T. E. Osborn, State High School Supervisor

Many inquiries from high school administrators of Kansas have reached the office of the Department of Education concerning the status of supervised study in the high schools of the state. In order to meet this demand for information on this particular phase of high school administration this study has been made. By examination of the annual reports of September, 1928, from the 743 accredited high schools of the state it is found that about 120 are operating with recitation periods of fifty minutes or more.

In order to find out the viewpoints of school administrators of the state on this subject, a letter asking for certain definite information was sent out to the 120 schools using the supervised study plan. Replies were received from 81 of the 120 schools and the information is compiled in the following table:

Schools	Enrollment	No. teachers	Years in use	Min. in per.	Rec. and Study	Lab. min. per wk.
Abbeyville	58	5	2	60	40-20	160
Abilene	530	24	6	70	40-30	140
Anthony	270	15	7	60	30-30	120
Arkansas City	697	24	10	60	40-20	180
Arma	240	10	3	70	40-30	120
Ashland	183	11	7	60	30-30	160
Atchison High	810	32	10	50	30-20	150
Atchison, St. Benedicts	219	16	6	55	55-55	220
Augusta	348	17	7	60	40-20	
Belleville	236	13	7	70	40-30	140
Bucklin	140	8	4	60	30-30	120
Burlington	289	14	2	65	40-25	130
Caldwell	269	9	4	65	40-25	130
Canton	74	5	1	60	30-30	120
Carbondale	62	4	1	60	40-20	120
Cedar Vale	154	10	2	70	40-30	160
Chetopa	127	7	6	60	40-20	120
Concordia	440	19	7	70	40-30	140
Cottonwood Falls	136	12	6	65	35-30	130
Dodge City	370	16	4	60	Varies	120
Durham	69	5	1	62	30-32	160
Edna	78	6	5	60	40-20	180
El Dorado	1,100	50	3	60	35-25	180
Erie	188	9	4	60	40-20	160
Eudora	95	6	7	80	40-40	160
Eureka	210	13	5	60	35-25	120
Everest	54	6		60	30-30	160
Frontenac	115	7	1	60	32-24	180
Frankfort	181	11	1	60	40-20	160
Goodland	300	15	7	60	35-25	180-180
Great Bend	375	19	5	60	35-25	120-180
Greensburg	185	14	4	60	30-30	160
Hays	200	11	12	60	Varies	60
Herington	291	13	4	65	40-25	130-195
Hoisington	240	14	4	60	40-20	150
Horton	355	15		70	40-30	180
Hutchinson	914	32	3	60	35-25	150
Inman	97	6	1	70	35-35	140
Iola	370	17	8	60	40-20	120
Independence	523	25		60	35-25	120
Junction City	256	14	7	60	40-20	140
Kansas City:						
Argentine	725	24	6	60	30-30	120
Rosedale	700	23	7	60	35-25	Varies
Wyandotte	1,800	62	14	60	35-25	160
Kingman	320	14	8	60	35-25	160
Kingsdown	39	7		50	30-20	100
Kinsley	170	11	3	58	40-28	136

Lawrence: Oread	64	5	17	50	20-30	200
Lewis	109	9	2	60	35-25	160
Liberal	550	28	6	70	40-30	140
Lincoln	261	13	4	70	40-30	
Lindsborg	215	8	1	60	35-25	120-180
Lyons	270	12	4	60	30-30	180
McPherson	318	18	1	70	35-35	140-210
Manhattan	544	29	12	67	Varies	Varies
Marysville	326	15	10	65	40-25	140-260
Merriam	450	18	9	65	35-30	130
Medicine Lodge	158	13	4	60	35-25	160
Midian	87	7		80	45-35	160
Moran	56	5	1	60	40-20	160
Newton	634	29	10	60	30-25	120
Partridge	92	6	1	60	40-20	160
Pittsburg	755	30	12	65	45-20	160
Salina	1,526	63	5	60	40-20	170
Scott City	176	10	2	70	45-25	160
Sedgwick	82	7	1	60	40-20	130
Sharon	60	6	1	60	Varies	120
South Haven	146	10	2	60	40-20	120-160
Stafford	238	12	1	60	35-25	160
Sterling	174	11	1	60	40-20	120
Topeka	1,700	58		60	40-20	120
Seaman, Topeka	240	14	2	60	Varies	120-180
Washburn, Topeka	105	6	1	60	35-25	160
Towanda	54	5	7	70	40-30	160
Tyro	49	3	1	70	Varies	140
Utica	64	5	1	60	Varies	180
Valley Center	170	8	1	70	40-30	160
Washington	146	9	1	60	40-20	240
Wellington	425	20	10	60	Varies	120-200
Wichita	2,588	112	12	60	Varies	Varies
Yates Center	214	11	3	60	30-30	120-160

Sixty-six of the eighty-one schools reporting have a Class A ranking and fifty-seven of these belong to the North Central Association. Only 18 schools out of the 81 have an enrollment of less than 100 students; 35, an enrollment between 100 and 300; 12, between 300 and 500; 11, between 500 and 1,000; and 5 have an enrollment exceeding 1,000 students. These facts show that the supervised study plan is in use in the high schools of high rank and large enrollment. Evidently, these are the schools which are able financially to provide adequate buildings, equipment, and a sufficient number of teachers to carry on the work by this method.

Only 28 of the 81 schools employ less than 10 teachers; 35, between 10 and 20 teachers; and 17 employ more than 20 teachers each. When we consider that the average number of teachers employed in 75 per cent of the 743 accredited high schools of the state does not exceed four, the figures again indicate that it is the larger high schools which are making use of supervised study.

In reply to our question asking how long this method had been in use, nineteen schools said they were using it for the first time this school year. By reference to the enrollments of these nineteen, it will be noticed that they are the smaller schools. Fifty-one schools have been using the longer period from three to fourteen years. This shows that it is the larger schools which have operated under this plan for the longest time, and it is only recently that the smaller schools have adopted it.

Fifty-one of the schools replying use a 60-minute period; four, a shorter period; and twenty-six a longer period. It may be observed that the sixty-minute period is most popular with the schools of large

enrollment. This indicates that the hour period is the one which fits into the school program of the large high school most advantageously.

There seems to be little uniformity in the matter of division of the period between recitations and study. Thirty-five of the eighty-one schools say they use forty minutes for recitation and the remainder of the time for study; nineteen use thirty-five minutes for recitation; twelve, thirty minutes; and the remaining fifteen schools make no attempt to divide the period, but allow the teachers to use their own judgment in the matter. There seems to be a tendency in some of the high schools to do away with the formal recitation and to use the whole period for socialized recitation or individual help of the student.

The minimum number of science laboratory exercises required in Kansas high schools is thirty-five for the school year. Most of the schools report that they are able to perform more than this. Experience has proved that this work requires about 160 minutes per week in most of the high schools of the state.

In reply to the inquiry concerning the amount of time required for this work, many of the large schools report that they are able to do the required laboratory exercises in less than 160 minutes per week. Many of those using the sixty- or seventy-minute periods devote two periods per week to this work, and report that the time is adequate. Others find it necessary to use three periods per week occasionally in order to complete the work. In the large schools, which usually have one or more full-time instructors in science, the work is usually more efficiently done than in the small schools. There is much less time wasted in setting up and manipulating the apparatus. Things are usually ready when the class arrives in the laboratory and consequently work begins at once with little loss of time.

REASONS FOR ADOPTING METHOD

Some of the reasons given by administrators for changing to the supervised-study plan follow:

1. The student prepares the lesson under the supervision and direction of the teacher who has made the assignment. This results in more expert guidance of the student in his attack upon the lesson.

2. The plan provides an opportunity for the teacher to give individual help to weak students at the time this assistance is needed. The problem of individual differences and individual needs of pupils can be studied more effectively by the teacher during the time of preparation of the lesson.

3. It gives the teacher a chance to aid and encourage those students who have no opportunity to study at home. The home environment of many students is such that the preparation of lessons is often interfered with by unavoidable circumstances. The supervised-study plan gives opportunity for at least some serious study without such interference.

4. From the administrative viewpoint much waste of time is prevented by the plan. Less time is taken for the passage of classes.

It gives more time for teachers and pupils to complete class projects. More friendly relations between teachers and students are developed by their co-operation during the period of study.

5. Most administrators feel that the supervised-study period results in the development of better study habits. The teacher should be an expert adviser who can direct the student to attack his lessons by the most effective methods.

About seventy per cent of the schools reporting prefer to have the recitation during the first part of the period. This is followed by the assignment of the new lesson and its preparation by the class for the following day. Most administrators expect from the teachers a different type of service during the supervised-study period than is usually given by the usual study-hall teacher. It is the time for group instruction and study followed by individual direction and assistance. The teacher must be alert and active. Assistance to students must be given or with-held according to the needs of the pupil. The teacher must be careful not to interfere with study but to promote quiet and effective student thinking. Interest and independence must be stimulated.

When asked to present tangible proof that the supervised study plan is better than that formerly used, many administrators admit that this is difficult to do. There is a feeling by many that the following benefits have resulted from supervised study:

1. The per cent of failures has been reduced.

2. Scholarship is higher under the supervised-study plan, as determined by the results of standard tests.

3. The holding power of the school is greater because of better work. The success of students causes them to remain in school.

4. Recitations are more interesting and the problem of discipline is less.

5. It has been pointed out by some that this method is especially beneficial to freshmen and sophomores who need instruction in study habits. In mathematics and science better progress is reported by some schools under the supervised-study plan.

A large number of schools are collecting statistical data to determine the efficiency of supervised-study as compared with the non-supervised-study plan, but many hesitate to present these because there are so many other factors which enter into the situation. The following schools have presented some very convincing statistics: Inman, Kinsley, Lincoln, Medicine Lodge, Sharon and Wyandotte High School of Kansas City, Kansas. In this article it is not possible to present all of these statistics, but the following table which has been submitted by one of the schools is given for your consideration:

Chart Showing Distribution of Grades Before and After the Supervised Study Plan was Adopted

No. of students receiving a grade of	A	B	C	D	F	No. of grades
First 6 weeks, 1926, no supervised study	18	76	84	69	42	290
First 6 weeks, 1937, supervised study plan	48	107	74	38	7	274
First 6 weeks, 1928, supervised study plan	36	109	93	34	8	280
Grades for year 1926-7, no supervised study	13	64	92	62	33	268
Percentages	4.8	25.4	34.3	23.1	12.3	
Grades for year 1927-8, supervised study	38	83	84	38	4	247
Percentages	14.7	36.1	32.7	14.4	1.1	

CONCLUSIONS

1. The supervised-study plan is more generally in use in the larger high schools than in the smaller ones.

2. Many of the schools using it have a class A ranking and are also members of the North Central Association of High Schools.

3. The sixty-minute period is the most suitable for administrative purposes.

4. The most of the schools divide their period into a recitation and a supervised-study period. The length of the recitation varies in the different schools.

5. The larger schools using the longer periods are able to accomplish more in the science laboratory work than the smaller schools. Waste of time is eliminated and the work is completed more efficiently and more quickly.

6. Supervised study has been used long enough in many schools to prove its superiority over the non-supervised study plan. Practically all are satisfied with its results and would not return to the old plan under any consideration.

7. A different type of service is required of teachers of supervised study classes than what is required of ordinary study-hall keepers. The development of proper study habits and the assistance of pupils who need individual attention are the important functions of the teacher.

8. Tangible proof of the superiority of the supervised study over the non-supervised study method is being collected by several of the schools of the state.

9. Supervised study is more effective than the non-supervised plan but should not be adopted unless the school has proper buildings and equipment and is able financially to provide more teachers than are needed under the latter plan.

A Fifteen Year Achievement

By A. E. Winship

The following tribute to the growth and development of Kansas State Teachers College of Pittsburg during the fifteen years that Dr. W. A. Brandenburg has directed its activities as president appeared in the *Journal of Education*, December 17, 1928. It was written by A. E. Winship, famous editor of the Journal, who has observed the growth of the College ever since its founding a quarter of a century ago. The editorial is headed "A Fifteen Year Achievement."

"It has been my good fortune to know the evolution of teacher-training institutions for sixty-five years as probably no one else has known it. It would be impossible to have any one appreciate why most of the 180 State Normal Schools, and State Teachers Colleges into which many of them have blossomed, have a distinct personality, but as memory films this moving picture it is increasingly interesting.

"Our recollection of the fire that penalized the wee bit of a school at Pittsburg, Kansas, by destroying in a few minutes Russ Hall, its only real pretense to a materialized institution, has led to magnifying the fifteen years since then.

"In these fifteen years a marvelous Teacher Training Campus has been created with eleven architecturally beautiful and academically dignified college buildings inclosing it. The state has invested a milllion-and-a-half dollars ($1,450,000) in buildings, and the present legislative appropriation for the institution is $1,274,259 for the biennium.

"In the fifteen years the enrollment of different individuals has increased 3,700 in number, and scholastically the number of graduates receiving college degrees has increased from 13 in 1913 to 246 in 1928. The faculty has increased from 43 to 136, and there are eleven of the faculty with a doctor's degree. Only one had such recognition in 1913. What is more significant is the fact that ten of the faculty of 1928 are on leave this year, studying for higher academic recognition.

"All this has little significance as it appears in cold black type, but to one who has seen the frail institution with its fire-devastated building, with a faculty with several varieties of professional visions, with a state sentiment that could change without notice, evolve into a noble professional college with a distinct educational personality there is a thrill as memory traces the experiences of the president through superintendencies in Iowa and Oklahoma into leadership of this remarkable evolution of professional and scholastic creation."

Horse Sense

By I. G. Wilson, Professor of English

It has been found that children like animal stories. Bears, wolves, lions, tigers, buffaloes, all are fascinating. So far as the compiler knows there has been no attempt, up to date, to collect animal stories concerning horses and yet they offer an interesting field for children's reading. There has been no attempt to be logical or present the stories as to type. In some instances the author has not been found. Some of these are books, some are stories and some are poems. Sometimes the selection is but an episode in a book. The list follows:

1. Alcatraz—Brand.
2. How the Old Horse Won the Bet—Holmes.
3. John Gilpim's Ride—Cowper.
4. Coaly Bay—Thompson.
5. Black Beauty—Sewell.
6. Miss Kilmansegg's Ride—Hood.
7. How They Carried the Good News From Ghent to Aix—Browning.
8. The Chariot Race (*Ben Hur*)—Wallace.
9. Chariot Race in Alexandria (*Serapis*)—Ebers.
10. Equestrian Courtship—Hood.
11. The Burial of Minnesink—Longfellow.
12. The Steeple Chase (*Under Two Flags*)—Ouida.
13. Kentucky Bell—Woolson.
14. Houyhnhnms (*Gulliver's Travels*)—Swift.
15. The Bell of Atri—Longfellow.
16. Lily Servoss (*A Fool's Errand*)—Tourgee.
17. Smoky—James.
18. Beyond Rope and Fence—Grew
19. Pal o' Mine (*King of the Turf*)—Hawks.
20. Midget the Return Horse (*Thousand Year Pine*)—Mills.
21. Pacing Mustang (*Wild Animals I Have Known*)—Thompson.
22. About a Colt (*Half a Hundred Stories*)—Baldwin.
23. Alexander and Bucephalus (*Fifty Famous Stories*)—Baldwin.
24. Bay Colt Learns to Mind (*Among the Farmyard People*)—Pierson.
25. Brave Little Maid (*Braided Straws*)—Faulke.
26. Chimera (*Wonder Book*)—Hawthorne.
27. Firefly (*Stories of Humble Friends*)—Pyle.
28. Wildfire—Grey.
29. Little Gray Pony (*Mother Stories*)—Lindsay.
30. Pasture Story (*Sandman*)—Hopkins.
31. Pagasus (*Child's World*)—Poulson.
32. Tom and Jom (*Stories From My Attic*)—Scudder.
33. My Beautiful, My Beautiful—Norton.
34. A Colt's Love Saves a Boy (October 7, 1928)—Kansas City Star.
35. A Famous War Horse (Pathfinder, 1928)—Pathfinder.
36. An Old Horse Shows 'Em (October, 1928)—Boston Globe.
37. **Our Horses' Pilgrim Fathers** (*Scrap Book*, Nov., 1906)—Grey.
38. Ben the Battle Horse—Dyer.
39. Piebald, King of Bronchos—Hawkes.
40. A Wild Thoroughbred (*Waiting in the Wilderness*)—Mills.
41. Capturing the Wild Horse—Irving.
42. Traveler (*Recollections and Letters of R. E. Lee*)—Lee.
43. Old Manitou (*Winning of the West*)—Roosevelt.
44. Cricket, the Return Pony (*Country Life*, April, 1914)—Mills.
45. Dandy—Custer.

46. Work of the Blue Cross on the Battle Front (Nov. 17, 1917)—Literary Digest.
47. Horses in the Big War (*Outing*, May, 1919)—Babcock.
48. Our Animals in the World War (*Harpers*, June, 1921)—Baynes.
49. The Greatest Horse in the World ("Story of Man of War," *Independent*, March 5, 1921)—Reid.
50. My Lady's Celebration (*Stories of American Revolution*)—Tomlinson
51. Pasha, the Son of Selim (*Horses Nine*)—Ford.
52. Wonder Book of Horses—Baldwin.
53. The Legend of Bregenz—Procter.
54. The Horse as Comrade and Friend—Calthrop.
55. Bronc, The Stray (*Woman's Home Companion*, July, 1917)—Gates.
56. Charlie (*The Red Book of Animal Stories*)—Lang.
57. The Hunt of the Wild Horse (*The Boy Hunters*)—Reid.
58. Black Hero of the Ranges (*St. Nicholas*, Nov., 1914)—Mills.
59. The Story of a Jockey (*Stories for Boys*)—Davis.
60. The Wonder Horse (*The Joyous Travelers*)—Lindsay and Poullson.
61. The Story of the Horse (*Book of Knowledge*)—Vol. 19.
62. The Horse (*Our Humble Helpers*)—Fabre.
63. Caballo Blanco (*Youth's Companion*, Dec. 28, 1918)—Sears.
64. Nep (*Youth's Companion*, October 30, 1919)—Stephens.
65. Kaibab (*Shrine Magazine*, November, 1928)—Chapman.

The Trend In Education

A constant educational problem is to strike a right balance between "teacher" activity and "pupil" activity. The tendency in this country in recent years is to emphasize the importance of "pupil" activity. Soviet Russia in its educational program seems to be carrying the principle of "pupil" activity even farther than ever carried in this country. The Bureau of Education, Bulletin No. 13, 1928, *Major Trends of Education in Other Countries,* thus reports: "The pupils have an unusual amount of freedom and control most of the activities of the school. No scale of grading is used other than 'satisfactory' and 'unsatisfactory', and the certificate states that the pupil has 'studied and learned to apply' the subjects named in it."

The following excerpts are quoted from the foregoing bulletin: (Mexico) "Even the school children are helping to combat illiteracy. In the last three years of primary education, each pupil is expected to teach some illiterate child to read and write."

"In the educational reform in Italy in 1923, for the first time in the history of Italian education kindergarten instruction became an essential part of the elementary school course. Better adjustment between the kindergarten and the primary school was made through a unified primary-kindergarten curriculum."

Boards of education face the problem of the employment of married women every year. The American Educational Digest asked 954 superintendents: "Are married women with equal training and experience as efficient as unmarried?" The answers were:

Yes	597	or	63 percent
No	174	or	18 percent
Conditional	141	or	15 percent
Married women more efficient	42	or	4 percent
Totals	954	or	100 percent

"Opinion based on experience seems to indicate that marriage is not a significant factor in determining the efficiency of a teacher."

That education is now regarded as a lifelong process is evidenced by the growing attention to adult education. The National Education Association has now a Department of Adult Education.

The United States Bureau of Education reports continued growth in high school attendance and enrollments.

More than one-half of the population of high school age is in actual high-school attendance. Greater opportunities of high school attendance are offered to city than to rural youth. It is better than an even chance that the city boy of 14 to 17 is in high school; by contrast

the probabilities were 7 to 1 against his father's having opportunities for a high school education in 1900.

High school enrollments have more than doubled since 1920.

A survey made by the United States Bureau of Education of 763 institutions—universities and colleges—shows that 46 per cent of the men and 23 per cent of the women are engaged in occupations to finance their own courses.

According to the Bureau of Education one-room schools in rural sections are being replaced by consolidated schools, one -room schools having been abandoned for the past ten years at the rate of approximately 1000 each year. The Bureau states in its study:

"The growth in the number of large rural schools is due chiefly to the following facts: Thoughtful people realize that the large and well-equipped school has many social and administrative advantages over the small one; that great improvement in roads has taken place; and that with the modern school bus, equipped with comfortable seats, heaters, windows, and front and rear doors, pupils can be transported to school, satisfactorily and economically."

The same study shows that pupils in the consolidated schools have higher scores in reading, arithmetic, language, spelling, and handwriting.

Many institutions of higher learning are making use of intelligence tests in one way or another, an investigation by the Bureau of Research at Kansas State Teachers College at Pittsburg discloses. Of 40 teachers' colleges reporting, 32 use the tests; of 32 universities reporting, 29 use them; all the 5 agricultural and liberal arts colleges reporting use them.

The tests are put to sixteen different uses in these institutions. Chief among these are the prediction of the student's probable success in college work, educational and vocational guidance, grouping students according to ability, determination of excess hours advisable, and the determination of whether a student is working to his optimum.

A careful study of the work that falls to the member of a city school board and of the personal qualifications for that important position, is found in a book just off the press, *The City School Board Member and His Task*, by Prof. Edgar Mendenhall of Kansas State Teachers College of Pittsburg. The book aims at "increasing school board efficiency and securing better relations between the board and superintendent."

How virtually every child in the schools of Chicago is constantly reached throughout the school year by supplementary educational activities of the Field Museum of Natural History is described in a booklet, "Field Museum and the Child," published by the museum and summarized in the Public Ledger, Philadelphia.

Three hundred eighty-six schools in the city, with a combined

enrollment of 600,000 children, are being supplied with two traveling museum exhibition cases, exchanged every two weeks during the school year, by the N. W. Harris public school extension department of the museum. A total of more than 1,000 such cases, containing botanical, geological, zoological and economic specimens, are circulated by the museum. All the subjects represented pertain to the plants, mineralogy, fossils, animals and industries of the Chicago region.

The work of the James Nelson and Anna Louise Raymond public school and children's lecture division of the museum provides free moving pictures, lantern slides, illustrated lectures, guide lecture tours and other educational entertainment, both in the schools themselves and at the museum. Through the activities of this division 265,649 children were reached directly during 1927.

This pamphlet is to be distributed to school officials, principals and others. It contains thirty-four pages of text describing in detail all of these activities on behalf of children and is illustrated with eight photogravures and five half tones. A complete list of the subjects represented in the traveling exhibit cases, and a complete outline of the plan correlating the museum exhibits and lectures with the curriculum prescribed for the public schools by the Board of Education, are included in the pamphlet.

The Harris extension department has been built up on an endowment of $250,000 established in 1911 by the late Norman Wait Harris, to which contributions amounting to $125,000 have since been added by members of Mr. Harris' family. The Raymond division is founded on a $500,000 endowment provided by Mrs. Anna Louise Raymond as a memorial to her husband, James Nelson Raymond.—*School and Society.*

School and Society, in its issues of July 7 and 21, tells us that Leland Stanford, following the example of Harvard and the University of California, has approved the plan submitted to establish a three-year graduate program leading to the new degree of doctor of education (Ed. D.) which is to be analogous to doctor of medicine doctor of divinity, and doctor of philosophy. The three reasons offered for establishing this degree are: first, the desirability of creating a professional degree of equal weight and difficulty with the present Ph. D. degree, but with the emphasis on professional preparation and mastery of educational material rather than primarily on research; second, the need for a master-teacher type of degree to prepare better teachers in subject-matter fields for the rising junior colleges; third, a desire to create a new university degree that would relieve all departments of the university from the pressure of those older candidates for the Ph. D. degree who are not primarily interested in research but who are good teachers in college and normal schools who seek the doctor's degree because of pressure from the institution with which they are connected, rather than from any deep interest in the advancement of knowledge through research.

The new degree is to be of two types—one to be known as the

school administrator type, primarily designed for school administration and the teaching of education in universities, colleges, and normal schools; and the other to be known as the master-teacher type, designed to prepare a new type of teacher in subject-matter fields for junior colleges and small colleges generally. The emphasis of the new degree will be placed on a broad and systematic knowledge of education as a field rather than on research. The creation of such a degree by the leading universities was recently recommended by a committee of the American Historical Association.—*Journal of the American Association of University Women.*

A tour of German educational institutions has been planned for the summer of 1929 under the joint auspices of the international Institute of Teachers College, Columbia University, New York City, and the Central Institute for Educational and Instruction, Berlin.

Six weeks beginning June 17, 1929, will be devoted to visiting different types of German schools in a number of important cities, under the official direction of the German educational authorities. The party will assemble at Hamburg or Bremen, and will disband in time for the meeting of the World Federation of Education Association at Geneva during the last week of July. It will be limited to 25 members, and only persons having some command of the German language will be accepted. The total necessary expense for approximately six weeks to be spent in Germany will be $350.—*School Life.*

Charles H. Compton, assistant librarian of St. Louis Public Library, in an address on "The Outlook for Adult Education in the Library," before the American Library Association, tells of an investigation he made recently.

I took the records of approximately one hundred readers of William James, one hundred readers of Carl Sandburg, and one hundred readers of Homer, Aeschylus, Sophocles, and Euripides in translation. Who were the people that I found had been reading them? Strange to say they represented much the same classes of society. First of all, there were very few, if any, from our so-called intellectuals. Not a lawyer on the list of James or Sandburg or the Greek Classics; a few doctors; a few ministers; but the bulk came from what we consider the uncultured, and certainly the humble, occupations. Readers of James include a trunk maker, a machinist, stenographers, a saleslady, a laundry worker, a common laborer. That these readers in part at least really appreciated James and read him not because they were consciously striving to improve themselves, but because he had captured their hearts and minds, is indicated by letters which I received from a number of them in answer to a letter which I sent to them, inquiring how they happened to become interested in James.

Readers of Sandburg include stenographers, typists, a waitress, a beauty parlor manager, laborers, white and black, a department store salesman, a book agent, a musician, a painter, a shoe salesman, and an advertising man.

It may be noted that a number of the readers said in their let-

men, a cabinet maker, a draftsman, stenographers, a musician at a vaudeville theater, a colored insurance agent, a hairdresser, a chauffeur, a drug store clerk, a beauty specialist, a butcher, a telephone operator, and a railroad brakeman's wife.—*The English Journal.*

Hungarian students are planning a greater exchange of students between Hungarian and American schools next year, and Hungarian business men are looking forward to an increase in business between the United States and Hungary as a result of the good-will expedition of Hungarians to this country this spring and the return good-will expedition of Hungarian-Americans to Hungary this summer, according to Colonel Andrew Cherna, who has recently returned to New York. Colonel Cherna was president of the good-will pilgrimage of 1,200 Hungarian-Americans. The pilgrimage was to repay the visit here of more than 500 prominent Hungarians early this year to present a statue of Kossuth, the Hungarian patriot, to New York City and Hungarians in the United States.—*Journal of Education.*

Shall We Poison George? *

By James H. Dillard

I have before me a catalogue of a junior college. I believe in junior colleges. . . . I mention my belief in junior colleges to show that this criticism of a too ambitious junior college does not arise from any prejudice against a junior college as such.

My criticism has nothing whatever to do with any plan of educational organization. I am thinking of something else, not of any particular kind of institution. I am critizing this particular junior college catalogue because of the lesson that may be drawn from it.

Junior colleges take the student through the freshman and sophomore classes. That is, they are supposed to do two years of college work. The catalogue to which I am referring makes this profession and it gives its courses. My criticism is that it gives impossible courses. It gives, for example, a program for mathematics and Latin which cannot be carried out in any college in the time allowed. This is true of most of the courses. The layout in the psychology of education is perhaps the worst of all. I would bet dollars to doughnuts that not a student of this course, after he got through, could tell you in good plain English what he understands by the Psychology of Education. The principal of this institution is a man of ability, but he has a deadly germ in his system. Hence these ambitious courses.

I say ambitious. A better word would be pretentious. One of the ugliest words in the English language is pretentiousness. It sounds like something to run away from. Yet its spirit finds a ready entrance into educational systems and plays havoc, like malaria in the human system. It is not confined to colleges or junior colleges. It flourishes vigorously in high schools which try to put on college airs. It is found even in the grades, wherever pupils are promoted as if they knew some subject when they really know nothing about it accurately.

What is the most wholesome atmosphere that can hover about any school from college to first grade? It is the atmosphere of reality. There are not many nicer words in the English language than reality. If I were asked to give a piece of advice to any principal or teacher I should say, be real. If I were asked to give a second piece of advice I should say, be real. If I were asked to give a third piece of advice I should say, be real. If I were asked to give a fourth piece of advice I should say, For heaven's sake, be real. The school may be well housed and have teachers with all sorts of degrees, but if it does not breathe the atmosphere of genuineness it is not a wholesome place for young people.

I took this catalogue of a junior college simply as an example of one type of pretentiousness. How much better it would have been if the catalogue had published simple courses, setting forth honestly what could actually and accurately be done in the time allowed. How much better it would be for all schools to be real. We want our young

people to get the habit of being genuine in what they do, and to be honest with themselves, and not to begin life with ideas of unreality and sham. We want our education to help people to like what is simple and real.

The Architecture Of The Home

From The Seven Camps of Architecture, by John Ruskin.

It is as the centralization and protectress of this sacred influence [the memory of the past,] that Architecture is to be regarded by us with the most serious thought. We may live without her, and worship without her, but we cannot remember without her. How cold is all history, how lifeless all imagery, compared to that which the living nation writes, and the uncorrupted marble bears!—how many pages of doubtful record might we not often spare, for a few stones left one upon another! The ambition of the old Babel builders was well directed for this world: there are but two strong conquerers of the forgetfulness of men, Poetry and Architecture; and the latter in some sort includes the former, and is mightier in its reality: it is well to have, not only what men have thought and felt, but what their hands have handled, and their strength wrought and their eyes beheld, all the days of their life. The age of Homer is surrounded with darkness, his very personality with doubt. Not so that of Pericles: and the day is coming when we shall confess that we have learned more of Greece out of the crumbled fragments of her sculpture than even from her sweet singers or soldier historians. And if indeed there be any profit in our knowledge of the past, or any joy in the thought of being remembered hereafter, which can give strength to present exertion, or patience to present endurance, there are two duties respecting national architecture whose importance it is impossible to over-rate: the first, to render the architecture of the day, historical; and the second, to preserve, as the most precious of inheritances, that of past ages.

It is in the first of these two directions that Memory may truly be said to be the Sixth Lamp of Architecture; for it is in becoming memorial or monumental that a true perfection is attained by civil and domestic buildings; and this partly as they are, with such a view, built in a more stable manner, and partly as their decorations are consequently animated by a metaphorical or historical meaning.

As regards domestic buildings, there must always be a certain limitation to views of this kind in the power, as well as in the hearts, of men; still I cannot but think it an evil sign of a people when their houses are built to last for one generation only. There is a sanctity in a good man's house which cannot be renewed in every tenement that rises on its ruins: I believe that good men would generally feel this; and that having spent their lives happily and honourably, they would be grieved, at the close of them, to think that the place of their earthly abode, which had seen, and seemed almost to sympathize in, all their honor, their gladness, or their suffering,—that this, with all the record it bare of them, and of all material things that they had loved and ruled over, and set the stamp of themselves upon—was to be swept away, as soon as there was room made for them in the grave; that no respect was to be shown to it, no affection felt for it, no good to be drawn from it by their children; that though there

was a monument in the church, there was no warm monument in the hearth and house to them; that all that they ever treasured was despised, and the places that had sheltered and comforted them were dragged down to the dust. I say that a good man would fear this; and that, far more, a good son, a noble descendant, would fear doing it to his father's house. I say that if men lived like men indeed, their houses would be temples—temples which we should hardly dare to injure, and in which it would make us holy to be permitted to live; and there must be a strange dissolution of natural affection, a strange unthankfulness for all that homes have given. and parents taught, a strange consciousness that we have been unfaithful to our father's honour, or that our own lives are not such as would make our dwellings sacred to our children, when each man would fain build to himself, and build for the little revolution of his own life only. And I look upon those pitiful concretions of lime and clay which spring up, in mildewed forwardness, out of the kneaded fields about our capital—upon those thin, tottering, foundationless shells of splintered wood and imitated stone—upon those gloomy rows of formalized minuteness, alike without difference and without fellowship, as solitary as similar—not merely with the careless disgust of an offended eye, not merely with sorrow for a desecrated landscape, but with a painful foreboding that the roots of our national greatness must be deeply cankered when they are thus loosely struck in their native ground; that those comfortless and unhonoured dwellings are the signs of a great and spreading spirit of popular discontent; that they mark the time when every man's aim is to be in some more elevated sphere than his natural one, and every man's past life is his habitual scorn; when men build in hope of leaving the places they have built, and live in the hope of forgetting the years that they have lived; when the comfort the peace, the religion of home have ceased to be felt; and the crowded tenements of a struggling and restless population differ only from the tents of the Arabs or the Gipsy by their less healthy openness to the air of heaven, and less happy choice of their spot of earth; by their sacrifice of liberty without the gain of rest, and of stability without the luxury of change.

This is no slight, no consequenceless evil; it is ominous, infectious, and fecund of other fault and misfortune. When men do not love their hearths, nor reverence their thresholds, it is a sign that they have dishonoured both, and that they have never acknowledged the true universality of that Christian worship which was indeed to supersede the idolatry, but not the piety, of the pagan. Our God is a household God, as well as a heavenly one; He has an altar in every man's dwelling; let men look to it when they rend it lightly and pour out its ashes. It is not a question of mere ocular delight, it is no question of intellectual pride, or of cultivated and critical fancy how, and with what aspect of durability and of completeness, the domestic buildings of a nation shall be raised. It is one of those moral duties, not with more impunity to be neglected because the perception of them depends on a finely toned and balanced con-

scientiousness, to build our dwellings with care, and patience, and fondness and diligent completion, and with a view to their duration at least for such a period as, in the ordinary course of national revolutions, might be supposed likely to extend to the entire alternation of the direction of local interests. This at the least; but it would be better if, in every possible instance, men built their own houses on a scale commensurate rather with their conditions at the commencement, than their attainments at the termination, of their worldly career; and built them to stand as long as human work at its strongest can be hoped to stand; recording to their children what they had been, and from what, if so it had been permitted them, they had risen. And when houses are thus built, we may have that true domestic architecture, the beginning of all other, which does not disdain to treat with respect and thoughtfulness the small habitation as well as the large, and which invests with the dignity of contented manhood the narrowness of worldly circumstance.

I look to this spirit of honourable, proud, peaceful self possession, this abiding wisdom of contented life, as probably one of the chief sources of great intellectual power in all ages, and beyond dispute as the very primal source of the great architecture of old Italy and France. To this day, the interest of their fairest cities depends not on the isolated richness of palaces, but on the cherished and exquisite decoration of even the smallest tenements of their proud periods. The most elaborate piece of architecture in Venice is a small house at the head of the Grand Canal consisting of ground floor with two stories above, three windows in the first and two in the second. Many of the most exquisite buildings are on the narrower canals, and of no larger dimensions. One of the most interesting pieces of fifteenth-century architecture in North Italy, is a small house in a back street, behind the market-place of Vicenza; it bears date 1481, and the motto, *II. n'est rose sans épine;* it has also only a ground floor and two stories, with three windows in each, separated by rich flower-work, and with balconies, supported, the central one by an eagle with open wings, the lateral ones by winged griffins standing on cornucopiae. The idea that a house must be large in order to be well built, is altogether of modern growth, and is parallel with the idea that no picture can be historical, except of a size admitting figures larger than life.

I would have, then, our ordinary dwelling-houses built to last, and built to be lovely; as rich and full of pleasantness as may be, within and without; with what degree of likeness to each other in style and manner, I will say presently, under another head; but, at all events, with such differences as might suit, and express each man's character and occupation, and partly his history. This right over the house, I conceive, belongs to its first builder, and is to be respected by his children; and it would be well that blank stones should be left in places, to be inscribed with a summary of his life and of its experiences, raising thus the habitation into a kind of monument, and developing, into more systematic instructiveness, that good custom which

was of old universal, and which still remains among some of the Swiss and Germans, of acknowledging the grace of God's permission to build and possesses a quiet resting place, in such sweet words as may well close our speaking of these things. I have taken them from the front of a cottage lately built among the green pastures which descend from the village of Grindelwald to the lower glaciers:—

"John Mooter and Maria Rubi have had this house built with sincere faith. The dear God will protect us from all misfortune and danger, and let it stand as a blessing on our journey through this time of sorrow to the heavenly Paradise, where dwell all the saints; there God will reward them with the crown of peace for all eternity."

Radio As A Means Of Training Teachers

The Christian Science Monitor published the following item from Mexico City:

Teachers in rural schools must keep pace with progress in education, the Department of Public Education has ruled, and to do this radio conferences have been invoked for the first time in Mexican history.

The teachers attend radiocast lectures in their own schools and receive over the air information from the department's private station CZE in this city. The government has purchased elaborate receiving apparatus for this purpose, and sets have been installed in rural schools of the states of Mexico, Puebla, Morelos, Hidalgo, and Tlaxcala.