

SECOND SESSION

The second session of the Junior High School section was called to order by President Kadesch in the Cameo Ballroom of Hotel Winton at 9:15 A.M. Thursday, February 28, 1929.

Principal H. H. Ryan of University High School, University of Michigan, read his paper on *Recognition of Individual Differences in the Junior High School*.

THE RECOGNITION OF INDIVIDUAL DIFFERENCES

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About twenty years ago last September a group of boys entered the office wherein I presided as principal of a small high school. As I looked them over I saw that I knew all but one of them as members of the school and as football players; the one was a stranger. This newcomer was beetle-browed, squarely built, and heavy. It appeared that he had developed a craving for learning, and that he was now presenting himself as a candidate for enrollment in the high school. As he stood there, the 180 pounds of him, flanked by the enterprising lads who had ferreted him out and taught him the love of knowledge, he was, to me, too beautiful for words. In order that he might be eligible to play football, it was necessary that he pass in three subjects; so I, being coach as well as principal, placed him in two of my classes. These were algebra and plane geometry. For the third subject we selected English; we thought it unwise to have him try solid geometry without having had either algebra or solid geometry.

Time passed, and the football season was a glorious success, as were, in fact, all the other athletic seasons of the year. Nick left us then, and presently developed an interest in professional wrestling. I had an occasional letter from him, and once he sent me his photograph. After four or five years I lost sight of him.

One morning, five years ago, I saw in headlines in the sports section of a metropolitan newspaper the statement that Nick was to wrestle Joe Stecher for the heavyweight championship of the world.

Shades of the past stirred me to go down to the Coliseum to see the bout. There I sat with ten thousand other mortals and watched scissors and headlocks and toeholds for two hours, and wondered how the human ensemble could endure that kind of treatment. After the bout I worked my way past the three policemen who guarded his dressing room, and paid him a call. We talked over old times, and while we sat the promoter brought in the check which represented Nick's share of the proceeds of the evening. I recall with some bitterness that it amounted to more than my annual salary.

One morning as school opened I started down town to attend a committee meeting. As I turned the corner a block from school I saw my friend Margaret getting off a street car. Margaret was late; she bore in her hands none of the appurtenances of academic effort; she was sans books, sans pencil, sans home work, sans everything. But, socially and artistically, she was ready for the day. She was carefully groomed, the lily had been painted, and she was, all in all, quite refreshing to look upon. I said, "Margaret, you are certainly a vision; even I can appreciate you; but don't you think you might spare a little of the time and thought which you give to personal decoration, and devote that time to the kind of thing for which the school is established? You know the fundamentals of beauty come from within, not from without. The beauties of the mind endure long after physical beauty has vanished." (I need not continue the homily here; it is well known to all.) Margaret looked at me and smiled indulgently, and said, "Well, I suppose it is part of the business of a principal to talk that way; but I have to depend to some extent upon what I can see for myself. You know as well as I that a nice, wavy bob attracts more attention anywhere, anytime, than a pair of spectacles."

Margaret left us after a few months, but kept up an irregular correspondence with her home room adviser, so that we were able to follow her career. Her first matrimonial venture was not an unqualified success, and she soon found it advisable to effect a substitution and a transfer. After five or six years she wrote to express her satisfaction with life, her pleasure in her two little children, and her convictions as to the brightness of the outlook. She said that her husband, a medical man, had been assigned to an important piece of research in Germany, and that they would spend the year in Europe. Then she added, perhaps as a parting thrust, "I wonder if I'll see any of you over there?"

Frank, belligerent and determined, burst into my office at the head of a dozen boys in similar mood. He demanded of me an explanation of their being compelled to take instruction in handwriting as an accompaniment of a course in bookkeeping. I reminded him that if one kept accounts in a book it would be necessary for others beside himself to be able to read them. "But," said he, "that is no reason for trying to make expert penman out of us." I explained to him that as soon as his writing was as good as Specimen 8 on the handwriting scale which I held before him, he would be excused from further handwriting instruction. I went on to say that I had helped make the scale in question and that I knew that Specimen 8 had been written by a fourth-grade child. Frank looked at it for a moment and turned on his heel. "Come on, Gang," said he, "I guess we can write fourth grade anyhow."

Frank's has been an interesting career. In his high school work he encountered many academic difficulties; it is surely true that some of the credits he got were set down in the book of the recording angel as acts of mercy. But he played violin in the orchestra, played guard on the football team, helped manage class parties, and was in demand on the dance floor. After graduation, the same qualities and interests bore him on. He continued to be popular. He married the daughter of a well-to-do citizen. He set up a chain of automobile accessory stores. He developed political power. And the story ends with Frank, in his home city of 300,000 people, as President of the Board of Education.

Any high-school principal can construct from his own experience a long and interesting anthology. To me such a series of biographies seems to hold a significance which extends far beyond the mere enjoyment of a narrative. It provides an excellent background against which to view such a pronouncement as this one that I read the other day. Someone, in referring to cases of social success, said, "Some men are able to command the respect of other men, to gain their confidence, to secure their help. Often such men are not highly intelligent." Who says such men are not intelligent? Upon what grounds could one pronounce them unintelligent? What is the criterion for intelligence? It is undoubtedly correct to say, "Such men often do not possess the kind of intelligence which characterizes school teachers and college professors and test makers." But, in the last analysis, is it not true that consistent, conspicuous, sustained success in a con-

tinuous enterprise, in competition with other people, is an indubitable expression of intelligence?

The phenomenon of individual differences among human beings has been listed for a decade or so among the stars of first magnitude in the educational heavens. Visible to the naked eye of the layman for thousands of years, it has been the subject of limitless comment and conjecture in the general literature of the world, and it has been credited with being the source of most of the interest which man holds for man. Now it has come into the range of pedagogical telescopes, has been catalogued, has been adequately disguised in terminology, has acquired the customary coterie of worshippers, and, particularly on occasions like this, adds its plaintive note to the music of the spheres.

When you tell the layman, in your best professional manner, that you and your colleagues have begun to take account of anthropological idiosyncrasies, he is profoundly respectful up to the moment when you explain what that means. After that he regards you with suspicion, much as if you had buttonholed him to tell him that there are two sexes, or to pass on some other bit of sociological information that long ago ceased to be news.

We have been suprisingly slow to discover individual differences, and just as slow to concede the legitimacy and the beneficence of their existence. In the presence of the tendency of one's pupils to scatter in all directions in their qualities and reactions, no teacher of experience is content. The nature of the teacher's work, the attitude of the public toward the teacher's work, and the traditional attitude of humanity toward children are all against that.

To take the latter point first, history affords an interesting story of the evolution of the status of childhood in society. In the earliest days we find the child rated as an unexplainable misfortune; later as an inevitable nuisance; later as a chattel; and still more recently as a poor approximation of a human being. Most of us can remember the day when the adult world regarded the small boy as a lamentable miscarriage of divine planning, and set out determinedly to force him as quickly as possible into a semblance of adult behavior. Only recently have we abandoned the attempt to make a frog out of the tadpole by amputation of the tail and such acts of analytic and synthetic surgery. Let us hope that we are now definitely committed to that conception of the transition from childhood to adulthood which portrays it, not as an alteration, but as a development.

For a long time the public has forced upon the teacher the role of model as well as that of instructor. In some communities it is still true that the teacher must make no mistakes; she must be guileless, and sexless, and itless. The teacher comes gradually to accept this pedestal, and to think of herself, her own interests, her own opinions, her own preferences, as criteria. Intolerance follows; she cannot permit her pupils to differ from each other, since, by some axiom or other, that would make them differ from her.

If, however, we are truly entering an age in which humanity will permit a child to be a child, to the utter disregard of purely adult stereotypes; if the teacher is ready to permit each child to be himself; and if all of us are ready to keep in mind the difference between a high standard and a narrow standard; in short, if we are in an age of tolerance of personality; then the omens are all favorable to a consideration of individual differences as a factor in schooling.



A boy left school and went to work in a department store. After a year he returned to visit the school. The principal asked, "How does working differ from going to school?" The answer was, "Well, while I was here the teachers seemed to be trying to find out all the things I couldn't do; then they kept me working at those things all the time. Down at the store they keep finding things I can do, and putting me at them. It makes you feel like you amounted to something." There is the key to an attitude which would greatly improve our handling of individual differences. The common, fundamental abilities and habits are vastly important. Among other things, they equip the pupil for conformity. The negative nature of the virtues of conformity is, however, easily overlooked. The powerful abilities are those which spring from peculiar interests and aptitudes. Spelling and grammar and handwriting and computation are so definite and so measurable, and the teaching of them is so easily routinized, that the drift of the day's work is naturally toward them. The struggle to bring the whole group to a certain minimum level of attainment in common skills readily consumes the time and obscures the opportunity for the discovery and the encouragement of the peculiar possibilities of the individual. The typical teacher is in constant need of stimulation in the hunt for possibilities. Much of this must come from supervisory and administrative officers.

For example, the so-called extra-curriculum activities are an important part of the modern high school in its function as a laboratory for qualitative analysis. The range of activities must be broad enough to foster expression of a wide variety of abilities. Most high schools now have eligibility rules which among other things limit the number of major activities in which a single pupil may participate. This limitation has had its genesis in the necessity of protecting the all-round individual from an over-load of such things. There is another justification for it. While the one versatile chap is dashing about from one activity to another, to the peril of his health and his academic prosperity, there are four or five others who are thus being cheated of their several opportunities for similar development. It is not uncommon to see a ubiquitous and willing boy fitted out by his fellows and his teachers with a halo of usefulness which serves to attract and collect all sorts of tasks; these he does acceptably, while the undiscovered talent of others lies dormant. In many cases the briskness of inter-scholastic competition causes the coaches to make use of any tried material available rather than take a chance on developing the new.

Most coaches of athletics, debate, music, and plays need to be constantly stimulated to give attention to the training of understudies for stars. By this means the benefits of the activity are extended to a greater number of pupils, and a positive check is provided against the tendency of stars in general to capitalize their indispensability in all sorts of capricious ways.

In short, my point is that one of the most effective means of bringing out individual differences is the broadening of the life of the school until it approximates the diversity of community life in general, and the regulation of that life so as to bring about the maximum of participation.



Those types of individual differences which are of paramount interest to the high-school teacher in his classroom work are so numerous and often so intangible as to be baffling and discouraging. The first effect of the use of intelligence tests was unfavorable to the progress of our thinking about individual differences. They influenced educators to believe that these tests proved human differences to be essentially and fundamentally of but one kind. Many thought that, barring abnormalities, the arrangement of individuals in order of intelligence would in itself afford a view of human differentiation

which would be at once systematic and comprehensive. It was only as the testing movement went on, and as the improvement of tests and testing methods failed to bring out high correlations between intelligence and success, that we reluctantly conceded that abstract intelligence is only a part of the story.

Certain well-known analyses have contributed greatly toward the solution of the problem. Woodrow and Baldwin set up analyses of maturity. They pointed out that chronological age, the old criterion for maturity, is insufficient because it is a measure of duration of experience, and nothing more. Mental age must be considered, since it is a measure of ability to profit by experience. Educational age is a measure of the extent to which the individual has profited by school experience. Anatomical age is a measure of the fitness of the physique to undertake experience. Social age is a measure of the ability to profit by group experience. Moral age is a measure of the comprehension of the rules of group experience.

Thorndike has presented a brief but illuminating analysis of the manifestations of intelligence, distinguishing abstract, social, and mechanical intelligence. Judd has shown the social significance of the various aspects of maturity. Downey's analysis of will-temperament is helpful, as are Charters' analysis of ideals, Reavis' analysis of maladjustment, and many recent analysis of the problem of study.

Thus the process goes on. We are coming to the point where we can think of these individual differences as arranged in categories and systems and types. In the case of the given pupil, both diagnosis and treatment are facilitated by this organization, incomplete and imperfect though it may be. Within a decade we can expect the publication of a manual of diagnosis, which will include a systematic list of types of differences, a description of procedures for recognition of differences, a compendium of diagnostic tests, and a suggestive array of devices for the adaptation of school procedure to these differences.

I have had occasion during the last half year to make a study of two groups of high-school pupils. These groups, of ten pupils each, were made up in such a way as to present a striking contrast in the effectiveness of their classroom efforts. The one is composed of those pupils who are the most successful in the academic work of the school in terms of their ability; the other of those who are least successful. The intelligence quotient is used as a measure of ability. The co-

efficient of correlation between intelligence quotient and scholarship in the academic subjects is about .70 for the whole school. The non-academic subjects, music, industrial arts, fine arts, and physical education, are left out of the calculation because of the very low correlation (.20) which they show with I.Q. The regression line of scholarship on intelligence is used to predict scholarship from intelligence, and the disparity is obtained by subtracting the predicted scholarship from the actual. The pupils having the ten highest positive disparities and those having the ten greatest negative disparities were the ones selected for study.

I started out in the hope of finding some general factor which would explain the contrast between these two groups. But, while the study has not progressed far enough to warrant conclusions, one thing is becoming quite evident: the explanation for each of these outstanding cases is going to be peculiar to the case. In other words, it is turning out to be less a matter of generalization and more a matter of individual diagnosis.

For instance, I started out with the prophecy that the unsuccessful pupils would be found deficient in reading ability. But two of the unsuccessful group, a boy and a girl, appear to be the best readers of the twenty. I expected that the non-achievers would be lacking in social sense. But one of the non-achievers, a girl, made a score on the George Washington University Social Intelligence Test which was far above the range of norms and above the range of my arbitrary extension of the norms. I expected that the unsuccessful would show inability to organize material, to use the index of a book, to select the central thought of a paragraph; but some of the best performances in these directions came from the non-achievers. I have called to my aid literally dozens of different kinds of tests and scales, with no generalizations in sight. Each of my subjects persists in his own private weaknesses and disabilities and virtues, regardless of the inconvenience which he causes me.

Here we have two girls, Sally and Janet. Sally's intelligence quotient is 118, Janet's 110. Sally is a healthy, handsome, upstanding creature, with the fire and vim of hearty young womanhood. Janet was crippled years ago by infantile paralysis and is only gradually improving in ability to walk about; she has frequent medical attention which necessitates her absence from school, sometimes for weeks. Sally shows an extraordinary understanding of human behavior, Janet

but little. Sally's reading is at the level of a graduate student in the university; Janet's at the 12th grade level. Sally's mother taught school before she was married, and feels that she has something at stake in the showing which her daughter makes at school. Janet's mother did not go to college. Sally drives her car to school; she arrives early and drives out in the directions from which her friends and teachers come, to pick them up and give them a ride. Janet is brought to school in the family car, goes through her quiet day, and is taken home. Both families are comfortably well off, both think well enough of their children's schooling to pay tuition. Janet, the cripple, the less able, is the successful one of the two. How would one predict it from the evidence? Some type of individual difference is in her favor. It must be a powerful factor, to offset her handicaps.

Here are two boys: Fred is the son of a college professor. He has one sister. Both are of high intelligence, her intelligence quotient being 138, his 125. Dick is a son of a small farmer who was born in Germany; Dick's mother was born in Hungary. Neither the father nor the mother had more than elementary education. Dick also has one sister, her intelligence quotient being 117 and his 123. Fred, as a twelfth-grader, reads at graduate school level; Dick, as a tenth-grader, reads at twelfth-grade level. They compare in about the same way in ability to use books, to outline, to select the central thought of a paragraph. Fred lives near the school, and Dick lives five miles away in the country. Fred's father and mother are anxious for him to succeed. Dick's parents are about to send him to business college, in order to give him a quick introduction to the making of a livelihood; they feel the strain of the support of the family, and hope for early relief. Fred is interested in law; he wants to go to college, and is especially anxious to try out for University athletic teams. He is a good basketball player, but has not always been able to play, organic weakness interfering. Dick is interested in mechanics, and would like to study mechanical engineering. He tinkers and builds when the opportunity presents itself. He has played on class athletic teams, but is not especially proficient. Fred likes to argue, and irritates his parents by contesting all sorts of points in family matters. Once he favored a school strike because a certain evening party was not permitted. Dick at one time became impatient over the long series of diagnostic tests, and inquired rather positively how long it would last. Here again the question rises: what in the evidence would predict

what is actually true—that the mechanics-loving son of the immigrant farmer would be the successful one of the two.

Robert's father is anxious for him to get an education, so moves to town and sets up a home a block away from the school. He requires no chores of the lad, seeking to give every opportunity for success. Emily lives on a farm on a dirt road. She must rise early, bring the milk into town with her, fight her way through the mud or snow, with her own hands unload the ten-gallon cans of milk and place them on the platform at the creamery. Arriving at the school, during the winter months, she must get down and drain the water from the leaky radiator to keep it from freezing during the day. The family can afford neither to keep pouring alcohol into such a prodigal radiator, nor to have it soldered up to cure it of its carelessness. Why should Emily do better school work than Robert?

Why does Tom, who made the winning touchdown in the Springfield game, take his honors with a matter-of-fact modesty that warms the heart, while Harry, who made the winning touchdown in the Jamestown game, swaggers about in the last stages of what might be called "Dementia Peacock"?

Children are like golf. If they were more consistent there would be less profanity and less lying; but they would be less interesting. The nearest approach to consistency in differences, so far as my own studies go, is found in sex differences. Boys must be studied as boys, girls as girls. In every grade of the school I find the correlation of intelligence with scholarship higher for boys than for girls. On the other hand, a given intelligence quotient is predictive of higher scholarship for girls than for boys, the difference being about a third of a step in a five-step marking system. Boy nature and girl nature seem to react in different ways to the same school situation.

It has been the purpose of this paper to point out four things: First, a tolerance for personality is essential to the study of individual differences. Second, a school organized as a comprehensive and well-regulated community is an excellent means of bringing out individual differences. Third, the student of individual differences may profit by a number of analyses of phases of the problem, which have by other students of the question. Fourth, as an illustration of the futility of depending upon generalizations, a contrast of cases of ex-

treme disparity between intelligence and scholarship seems to reveal almost no common factors.

A wholesale testing program, whatever its values in other directions, will not accomplish the recognition of individual differences. Rather, the school must provide for the close personal study of cases. Individual differences call for a person-to-person technique.

President Kadesch called on Frank P. Morse, State Supervisor of Secondary Education of Massachusetts to take the chair.

E. H. Fishback, Principal of Junior High School, Anderson, Indiana, read his paper, *How Extensive Should the Elective Offerings Be to Achieve the Survey and Try Out Functions of the Junior High School?*

HOW EXTENSIVE SHOULD THE ELECTIVE OFFERINGS BE TO ACHIEVE THE SURVEY AND TRY OUT FUNCTIONS OF THE JUNIOR HIGH SCHOOL?

E. H. FISHBACK,

PRINCIPAL JUNIOR HIGH SCHOOL, ANDERSON, INDIANA

A recent speaker¹ in New York City, telling of his life as an early adolescent boy in the town of North Newport, Maine, said, "It seems to me that those days and those people become more vivid to me every year. Clearer than any scene revealed by the lights of this blazing city I see my grandmother making candles in the tin mold, a dozen at a time, or patiently sitting at the spinning wheel, which miraculously turned out yarn for our winter's stockings and mittens. Much more brilliant to me to-day than Broadway is the magic path that the moonlight used to make across the lake at the foot of our hill. And more wonderful than all else were the changing glories of the sunset, into which I used to stare of a summer's evening, as I lay on the grass at the west side of the house and speculated about life and death and principalities and powers and things present and things to come—particularly those things which might come to a country boy whose life was lived largely in his dreams.

"No one can look back to his boyhood on the farm—no man can look back on those long winter evenings after the chores were done,

¹Merle Crowell, Editor, "American Magazine."