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Student I. Q.'s Rise In California Tests

By FRED M. HECHINGER

Evidence that applied human intelligence can be dramatically increased has been offered by an experiment conducted by a California professor after twenty-five years of research.

The results of the test, administered at Whittier College, may offer the key to the release of native but unused brain power in the majority of persons.

Dr. Albert Upton, Professor of English and director of General Studies at Whittier, after subjecting 280 freshmen to a special "system" of instruction for eight months, reports that the measured intelligence, or I. Q., of the group had been raised by an average of 10.5 points, with individual gains ranging up to thirty-two points. He emphasized that the test in itself, as well as the score, was only a by-product of the students' increased ability to use their minds and to solve problems.

Dormant Powers

The success of the experimental method appears to be the result of the awakening and mobilization of dormant analytical powers. These powers, normally trained mainly in scientific work, may apparently be released by the application of scientific method to language and general thought processes. They then appear to transfer themselves to the general area of solving intellectual problems. The ability to solve problems is generally considered a major measure of that only vaguely defined concept of "intelligence."

Dr. Upton's experiment may be of special significance to education exactly because it does not involve special individual work with each pupil but rather shows itself successful with a large group. It may offer a new means of tackling one aspect of the problem of people considered "underachievers." In the past their achievement below their ability has generally been attributed to lack of interest.

Dr. Upton has been developing his ideas for many years with the guidance and encouragement of Dr. Ivor Armstrong Richards of Harvard University.

Gains in Test

Last October the Whittier students were given a standard I. Q. test. Their average score was 109.5. During the seven months that followed the freshmen were assigned to Dr. Upton's "Graded Exercises in Analysis," designed to improve basic analytical abilities. Re-tested in May, the students' average score was 120. The scores of many students, however, were raised by twenty points or more, with one student gaining thirty-two points. Dr. Upton believes that more extensive training might bring even greater improvement.

The "system," says Dr. Upton, teaches the relationship between "words and things." It applies the scientific method to language and communications and thereby to thinking and understanding. Dr. Upton says that this method has been properly applied to science for hundreds of years. By applying it to language and thought, he says, "there is every reason to believe that the average American I. Q. can be raised significantly in a short period of time."

In nontechnical terms, Dr. Upton tries to teach the student to understand that ideas and words which are new to him resemble ideas and words he already understands. He points to what he calls scientific metaphor of the "wave," which originally related only to water but was subsequently used to describe and explain phenomena of sound, in acoustics and in light. In this way, he says, the metaphor itself turns out to be the pattern of analytical thought, leading both to discovery of something new and its comprehension by means of familiar terms.

He aims at the expansion of the human capacity to see an analogy between an idea, a word or a metaphor he knows and an idea he wants to understand. Once the student understands this, he has learned how his tools of thought work, Dr. Upton said.

Dr. Upton hopes to follow up the students' performance in other academic work.

"We don't know whether 'native intelligence' may be increased, because we don't know what it is," he said. "But we can train people to solve problems they could not solve before."