Association Affairs

Section on Education (Q)

At the recent AAAS meeting in Chicago Section Q held three meetings and a joint meeting with Section I, at which the vice-presidential addresses of the two sections were given. In his vice-presidential address for Section Q, W. A. Brownell discussed three criteria of especial importance in educational research. He pointed out that these apply especially to educational research and might, or might not, be equally pertinent to psychological research. The criteria which he mentioned were: the level of process attained as distinguished from mere measures of product, the degree of retention of learning, and transfer-ability. He noted that too few studies of learning or of remedial practices have been followed up by investigations at later times to see if the changes produced have persisted. Evidence was given, also, to show that, when measured by the criteria of transfer-ability, some methods were found to be superior which were not superior when measured in terms of speed and accuracy of performance only.

A very stimulating symposium on "The Place of Science and Philosophy in Education" included papers by an educational scientist, an educational philosopher, an academic scientist, and an academic philosopher. Educational methods were at first derived from philosophy rather than science; later, in many areas, scientific methods were used to determine what should be taught and how it should be presented. Now there seems to be, again, a definite tendency toward philosophical methods. While it was recognized that science does not in itself determine values, it was strongly emphasized that any wise determination of values is based upon scientific fact. Educationists were called upon to define their terms much more exactly than they have sometimes done and to evaluate their findings in terms of the specifically defined ends desired. Scientists cannot be held responsible for the uses to which the results of their studies are put, but scientists as individuals have their place in influencing social philosophies. Sciences vary in their degree of maturity, and the social sciences in particular cannot yet claim to be as "scientific" as some of the older disciplines. Various misunderstandings and misconceptions in regard to scientific method were set forth as answers.

Another symposium was on "The Relationships of Group and Individual Research in a World of Large-Scale Organization." The impossibility of adequately solving some of our problems in terms of the work of individuals or in terms of work done at single locations was brought out. Several examples of successful group research were described. At the same time, it was emphasized that no research workers have yet had experience in group research and that group studies, then, must be undertaken rather gradually. Further, it was made clear that individual creativeness must not be lost.

A final meeting was held in which major emphasis was placed on the status of achievement in school subjects, primarily reading and spelling—present school children as compared with those of earlier times. Difficulties of making good comparisons because of changes in curriculum contained in the desired objectives, in the nature of populations, in school studies, etc. were mentioned. Some evidence was presented, however, to indicate that, especially in the field of reading, children of the present day are distinctly ahead of those of a couple of decades ago. (D. A. WORCESTER, *Secretary.*)

Symposium on Photosynthesis (Section C)

Eighteen papers were presented in a day-and-a-half symposium on photosynthesis, the first to be held for the past 5 years. There was considerable discussion of the various papers and a general conference at the close of the sessions. The attendance, ranging from 100 to 400, comprised mostly chemists, botanists, and biologists.

In opening the symposium, the chairman, Farrington Daniels, of the University of Wisconsin, pointed out the long-range importance of the study of photosynthesis and stated that it is strange, in view of the enormous amount of research invested in agriculture and botany, that so little attention has been paid to the fundamental reaction underlying all plant growth —namely, the production of carbohydrates and other material from carbon dioxide and water in the presence of chlorophyll and sunlight.

The problem was attacked along several different lines, the first half-day being devoted to studies of light absorption by chlorophyll and other plant pigments, the emission of fluorescent light, and measurements of photochemical oxidation-reduction reactions carried out in the laboratory, designed to gain a better understanding of the photosynthetic reaction in the plant.