

Academy Conference
 Alpha Chi Sigma
 Alpha Epsilon Delta
 American Academy of Forensic Sciences
 American Association of Hospital Consultants
 American Book Publishers Council
 American Geophysical Union
 American Industrial Hygiene Association
 American Meteorological Society
 American Nature Study Society
 American Psychiatric Association
 American Society of Human Genetics
 American Society of Naturalists
 American Society of Zoologists
 Beta Beta Beta
 Conference on Scientific Editorial Problems II
 Conference on Scientific Manpower III
 Genetics Society of America
 Herpetologists League
 History of Science Society
 Honor Society of Phi Kappa Phi
 Massachusetts Zoological Society
 National Academy of Economics and Political Science
 National Association of Biology Teachers
 National Association of Science Writers
 National Geographic Society
 National Science Teachers Association
 National Speleological Society
 Philosophy of Science Association
 Pi Gamma Mu
 Scientific Research Society of America
 Sigma Pi Sigma
 Society for the Advancement of Criminology
 Society for the Study of Evolution

Society of Exploration Geophysicists
 Society of Systematic Zoology
 Society of the Sigma Xi
 United Chapters of Phi Beta Kappa

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The AAAS Cooperative Committee on the Teaching of Science and Mathematics

A Report on Recent Activities

THE Cooperative Committee was organized in 1941 by representatives of several scientific societies to work on educational problems, the solution of which can be attained better by cooperative action than by any single scientific group working alone. Initially consisting of the representatives of five professional societies in several fields of science and science teaching, the Committee has grown to include representation from eighteen professional organizations. The present Committee Chairman is Morris Meister, Bronx High School of Science, and the Secretary is Bernard B. Watson, Operations Research Office, Johns Hopkins University.

The member societies and their representatives are:

American Association of Physics Teachers: Bernard B. Watson, Operations Research Office, Johns Hopkins University.

American Astronomical Society: Thornton Page, Operations Research Office, Johns Hopkins University.

American Chemical Society: C. H. Sorum, University of Wisconsin.

American Geological Institute: Arthur L. Howland, Northwestern University.

American Institute of Physics: J. W. Buchta, University of Minnesota.

American Nature Study Society: Richard L. Weaver, University of Michigan.

American Society for Engineering Education: Milton O. Schmidt, University of Illinois.

American Society of Zoologists: L. V. Domm, Loyola University, Chicago.

Botanical Society of America: Glenn W. Blaydes, Ohio State University.

Central Association of Science and Mathematics Teachers: Donald W. Lentz, Parma (Ohio) Public Schools.

Division of Chemical Education of the American Chemical Society: Laurence L. Quill, Michigan State College.

Executive Committee of the AAAS: Duane Roller, Hughes Aircraft Company.

Mathematical Association of America: J. R. Mayor, University of Wisconsin.

National Association of Biology Teachers: Prevo L. Whitaker, Indiana University.

National Association for Research in Science Teaching: George G. Mallinson, Western Michigan College of Education.

National Council of Teachers of Mathematics: George E. Hawkins, Lyons Township High School and Junior College, LaGrange, Illinois.

National Science Teachers Association: Morris Meister, Bronx High School of Science.

Section Q (Education), AAAS: Francis D. Curtis, University of Michigan.

The Committee has given its attention to a number of major problems in the fields of science and mathematics teaching at the elementary, secondary, and higher educational levels. It has prepared and published reports embodying its views and recommendations in connection with these problems.

During the war the Committee issued a report on High School Science and Mathematics in Relation to the Manpower Problem. Shortly after the termination of the war it issued a report on The Preparation of High School Science and Mathematics Teachers, and recommended improved certification standards for teachers in these fields.

Among its most ambitious projects have been the preparation of two reports at the request of governmental bodies. One was prepared for UNESCO as an aid in rebuilding the instructional laboratories of the devastated nations of Europe and was concerned with the nature and organization of American science education, with particular reference to instructional equipment. The other was prepared at the request of John R. Steelman, Chairman of the President's Scientific Research Board, and was concerned with The Present Effectiveness of Our Schools in the Training of Scientists. It appeared in *Science and Public Policy* (Steelman Report), a report to the President by the President's Scientific Research Board.

Another activity of the Committee has been the sponsorship at each Annual Meeting of the AAAS of a symposium on some aspect of science teaching. In addition, each fall for the past three years, the Committee has collaborated with the U.S. Office of Education in arranging a conference to which are invited representative school administrators and science teachers for an exchange of views on some important problem in science education or in the preparation of science teachers.

During the past year the Committee has been concerned with the development, improvement, and utilization of techniques for the early recognition of science-talented youth. It has been concerned also with the improvement of the quality of educational experiences provided for such young people. The last joint conference of the Cooperative Committee and the U.S. Office of Education addressed itself to this general theme, and following that conference the Committee issued a statement of its views in connection with the training of personnel with high level ability in the fields of science and mathematics. The Committee believes

1. That the proper development of such personnel is essential to the welfare of the nation; especially so, in view of the critical shortage of scientists and engineers, the present and

anticipated demands of a technological age, and the state of international tension.

2. That equality of educational opportunity is basic to democracy; and that that implies an opportunity for every individual to attain his own maximum achievement.
3. That we cannot afford to continue the resulting loss to society in high quality human resources and creative contributions.
4. That current general practices for identifying and developing students with high aptitude in science and mathematics are inadequate.
5. That many tested and successful practices are being used for the early identification and proper development of students with high aptitude. These practices should be made widely known.
6. That schools and colleges should be urged to modify administration, curricula, guidance, and teaching facilities and procedures so as to facilitate widespread use of these successful practices.
7. That inadequate educational provisions for youth of high promise cause difficulties in coordinating school and college education.
8. That teacher training institutions and school systems should give greater recognition to the need for teachers qualified to teach students of top-level ability.

A further activity of the Committee reflecting its concern for the education of students of high ability has been its cooperation with the Ford Foundation's School and College Study of Admission with Advanced Standing in reviewing the courses of study developed in the sciences and mathematics. The School and College Study is seeking to provide an enriched educational experience for students of high academic ability while achieving, at the same time, a reduction in the total time required for such students to complete their high school and college work. Twelve colleges and an equal number of secondary schools are cooperating in the Study. Courses of study have been developed in eleven subject matter fields offered at the first-year college level. The scientific fields represented are biology, chemistry, physics, and mathematics. The courses of study developed in the project are being introduced this fall on a pilot basis in several of the participating high schools. Students successfully completing one or more of the courses will have had the equivalent of the first-year college courses in the subjects taken and will be given advanced standing in these subjects upon admission to the participating colleges. It is expected that colleges outside of the participating group may extend similar consideration to students completing the prescribed courses.

BERNARD B. WATSON
Secretary

The AAAS Cooperative Committee

